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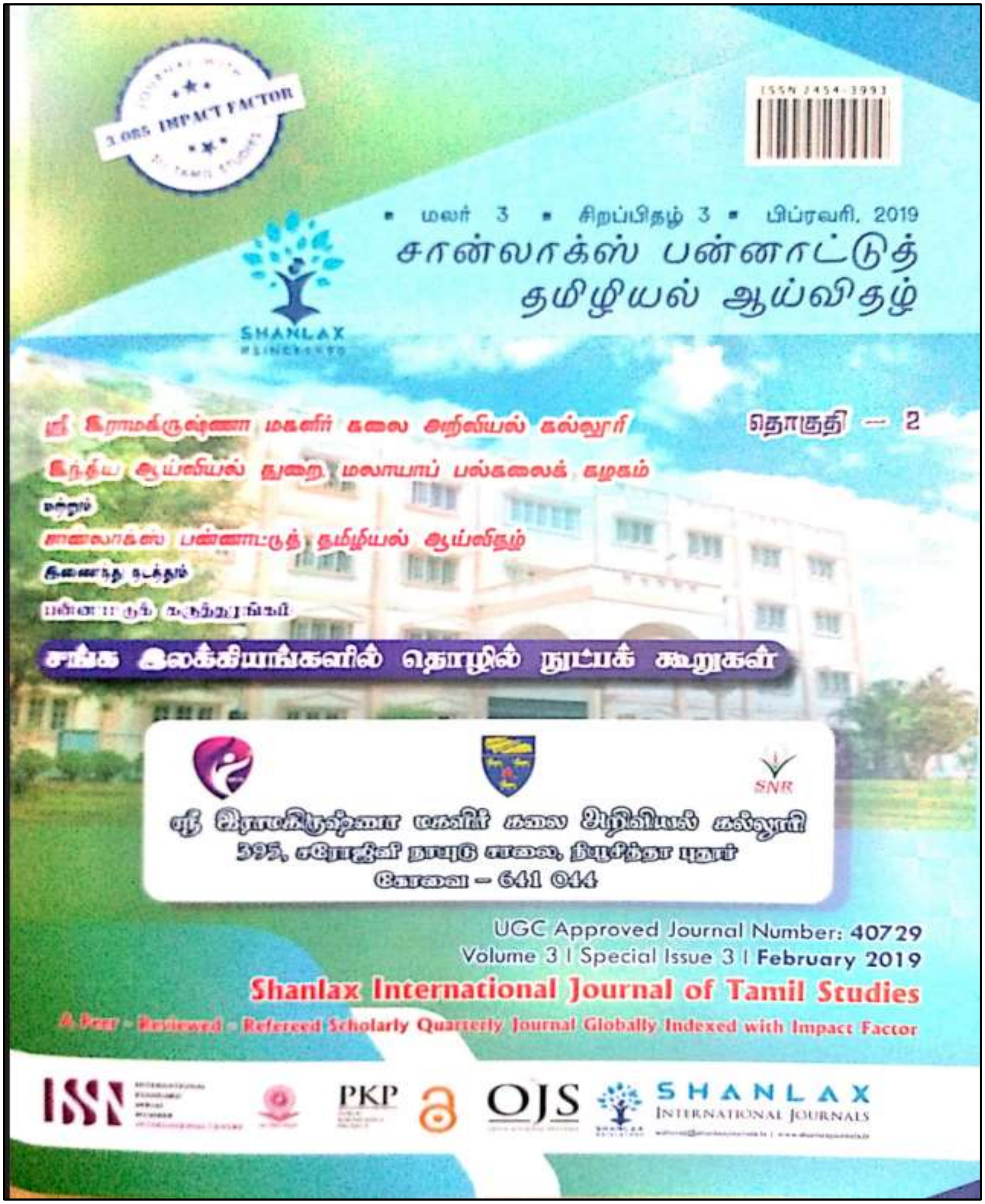

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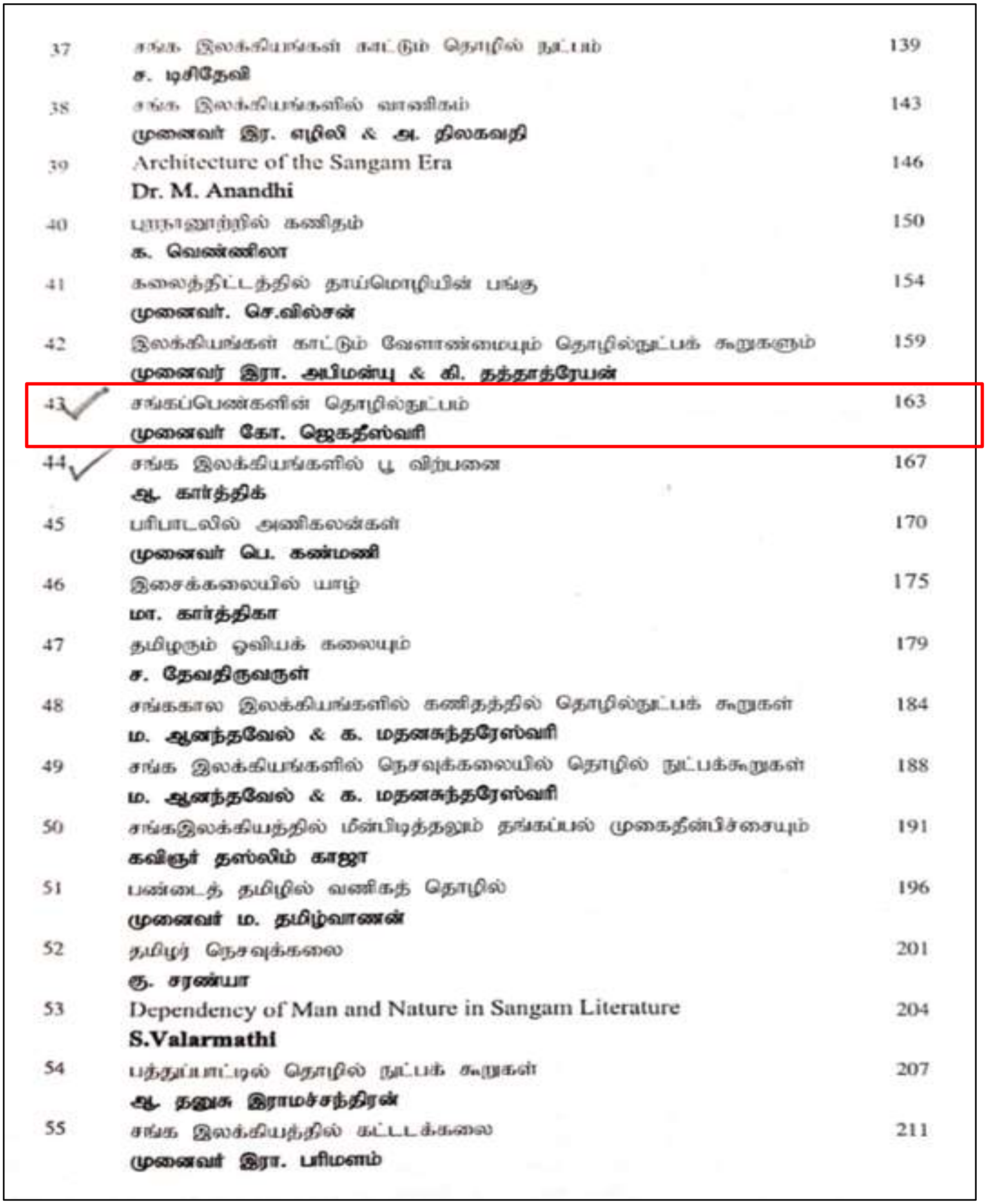

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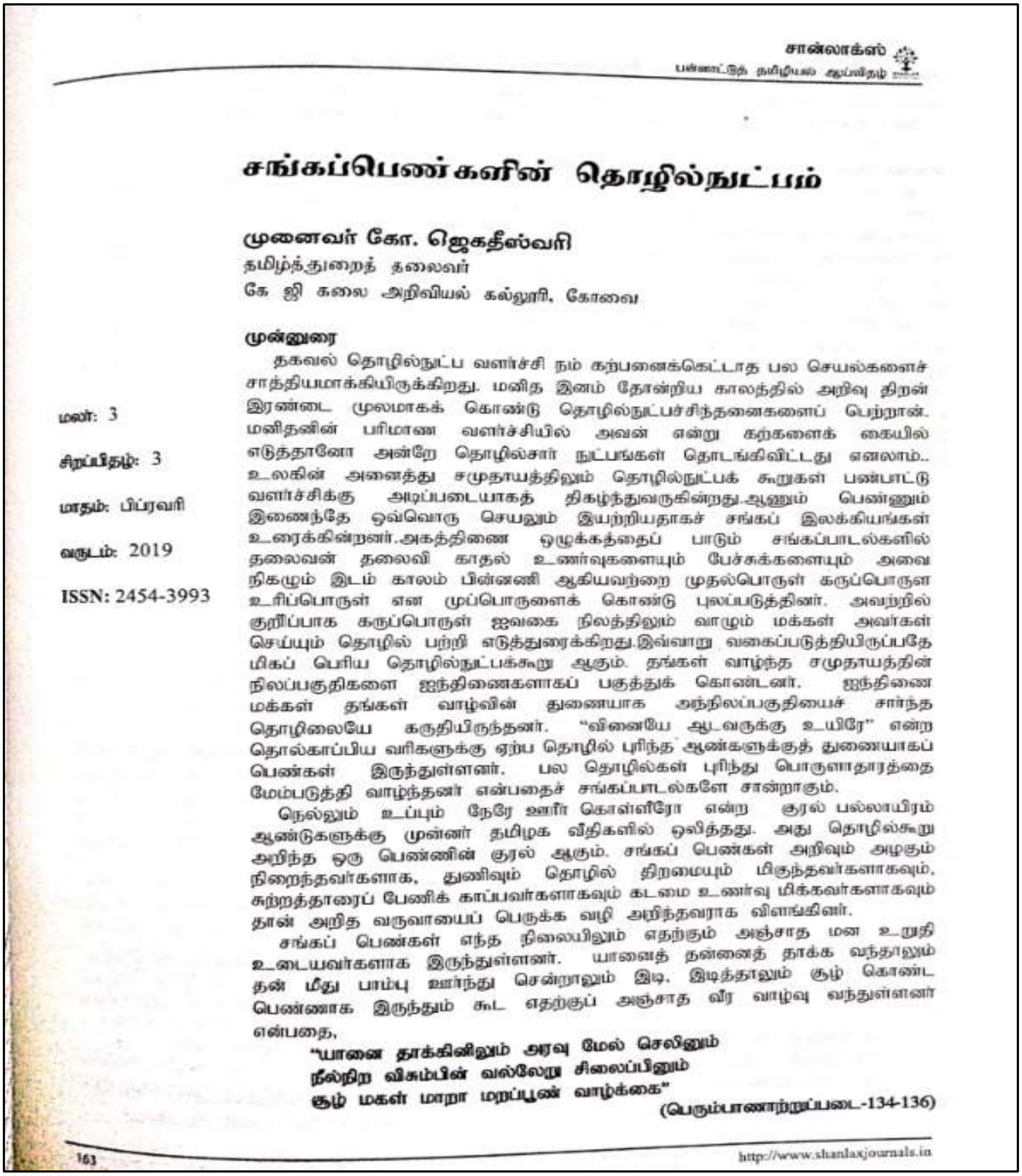

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சங்கப்பெண்களின் தொழில்நுட்பம்

முனைவர் கோ. ஜெகதீஸ்வரி
தமிழ்த்துறைத் தலைவர்
கே ஜி கலை அறிவியல் கல்லூரி, கோவை

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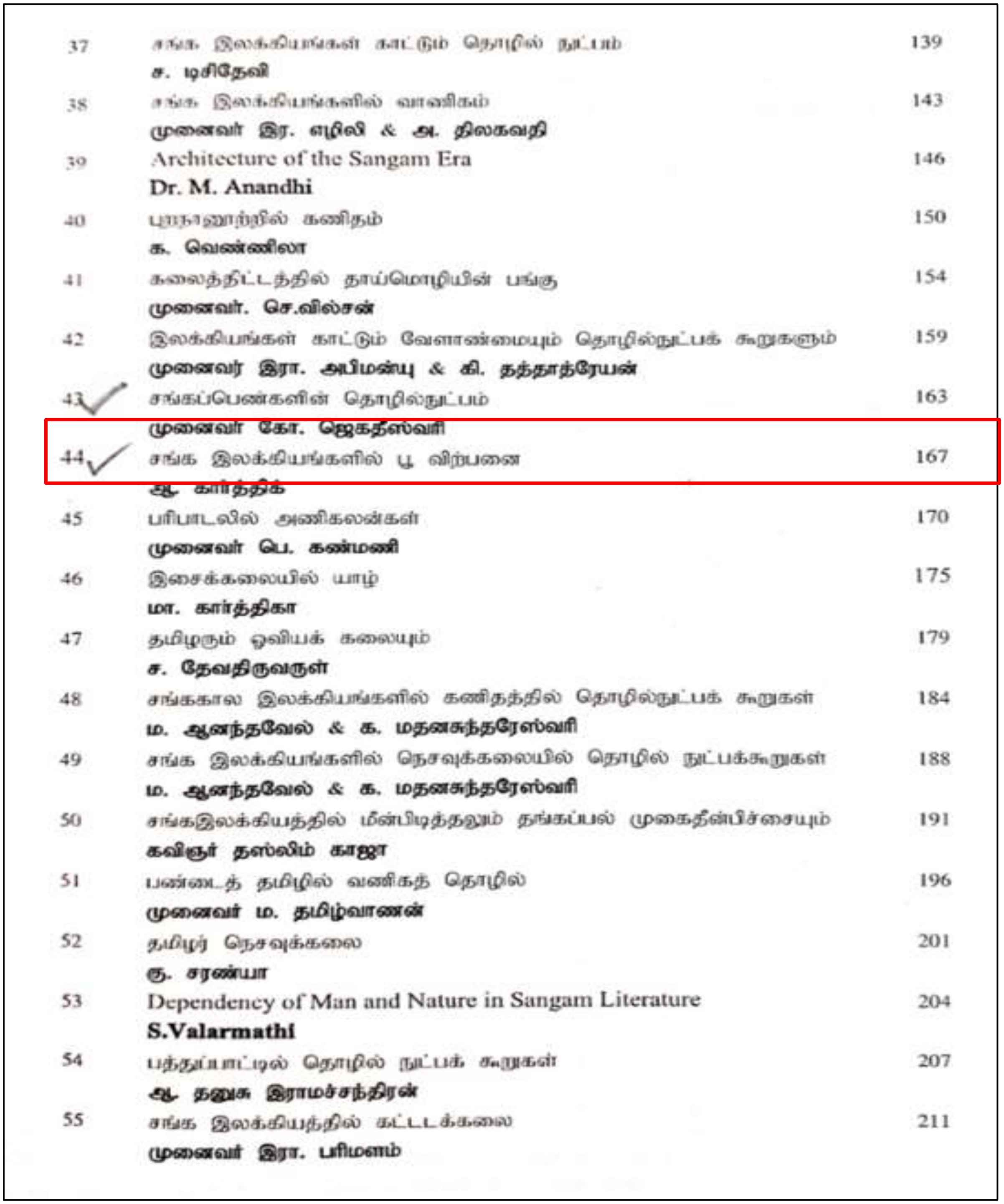
முன்னுரை

தகவல் தொழில்நுட்ப வளர்ச்சி நம் கற்பனைக்கெட்டாத பல செயல்களைச் சாத்தியமாக்கியிருக்கிறது. மனித இனம் தோன்றிய காலத்தில் அறிவு திறன் இரண்டை முலமாகக் கொண்டு தொழில்நுட்பச்சிந்தனைகளைப் பெற்றான். மனிதனின் பரிமாண வளர்ச்சியில் அவன் என்று கற்களைக் கையில் எடுத்தானோ அன்றே தொழில்சார் நுட்பங்கள் தொடங்கிவிட்டது எனலாம்.. உலகின் அனைத்து சமுதாயத்திலும் தொழில்நுட்பக் கூறுகள் பண்பாட்டு வளர்ச்சிக்கு அடிப்படையாகத் திகழ்ந்துவருகின்றது.ஆணும் பெண்ணும் இணைந்தே ஒவ்வொரு செயலும் இயற்றியதாகச் சங்கப் இலக்கியங்கள் உரைக்கின்றனர்.அகத்திணை ஒழுக்கத்தைப் பாடும் சங்கப்பாடல்களில் தலைவன் தலைவி காதல் உணர்வுகளையும் பேச்சுக்களையும் அவை நிகழும் இடம் காலம் பின்னணி ஆகியவற்றை முதல்பொருள் கருப்பொருள உரிப்பொருள் என முப்பொருளைக் கொண்டு புலப்படுத்தினர். அவற்றில் குறிப்பாக கருப்பொருள் ஐவகை நிலத்திலும் வாழும் மக்கள் அவர்கள் செய்யும் தொழில் பற்றி எடுத்துரைக்கிறது.இவ்வாறு வகைப்படுத்தியிருப்பதே மிகப் பெரிய தொழில்நுட்பக்கூறு ஆகும். தங்கள் வாழ்ந்த சமுதாயத்தின் நிலப்பகுதிகளை ஐந்திணைகளாகப் பகுத்துக் கொண்டனர். ஐந்திணை மக்கள் தங்கள் வாழ்வின் துணையாக அந்நிலப்பகுதியைச் சார்ந்த தொழிலையே கருதியிருந்தனர். “வினையே ஆடவருக்கு உயிரே” என்ற தொல்காப்பிய வரிகளுக்கு ஏற்ப தொழில் புரிந்த ஆண்களுக்குத் துணையாகப் பெண்கள் இருந்துள்ளனர். பல தொழில்கள் புரிந்து பொருளாதாரத்தை மேம்படுத்தி வாழ்ந்தனர் என்பதைச் சங்கப்பாடல்களே சான்றாகும்.

நெல்லும் உப்பும் நேரே ஊரீர் கொள்ளீரோ என்ற குரல் பல்லாயிரம் ஆண்டுகளுக்கு முன்னர் தமிழக வீதிகளில் ஒலித்தது. அது தொழில்கூறு அறிந்த ஒரு பெண்ணின் குரல் ஆகும். சங்கப் பெண்கள் அறிவும் அழகும் நிறைந்தவர்களாக, துணிவும் தொழில் திறமையும் மிகுந்தவர்களாகவும், சுற்றத்தாரைப் பேணிக் காப்பவர்களாகவும் கடமை உணர்வு மிக்கவர்களாகவும் தான் அறித வருவாயைப் பெருக்க வழி அறிந்தவராக விளங்கினர்.

சங்கப் பெண்கள் எந்த நிலையிலும் எதற்கும் அஞ்சாத மன உறுதி உடையவர்களாக இருந்துள்ளனர். யானைத் தன்னைத் தாக்க வந்தாலும் தன் மீது பாம்பு ஊர்ந்து சென்றாலும் இடி. இடித்தாலும் சூழ் கொண்ட பெண்ணாக இருந்தும் கூட எதற்குப் அஞ்சாத வீர வாழ்வு வந்துள்ளனர் என்பதை,

> **“யானை தாக்கினிலும் அரவு மேல் செலினும்**
> **நீல்நிற விசும்பின் வல்லேறு சிலைப்பினும்**
> **சூழ் மகள் மாறா மறப்பூண் வாழ்க்கை”**
> **(பெரும்பாணாற்றுப்படை-134-136)**



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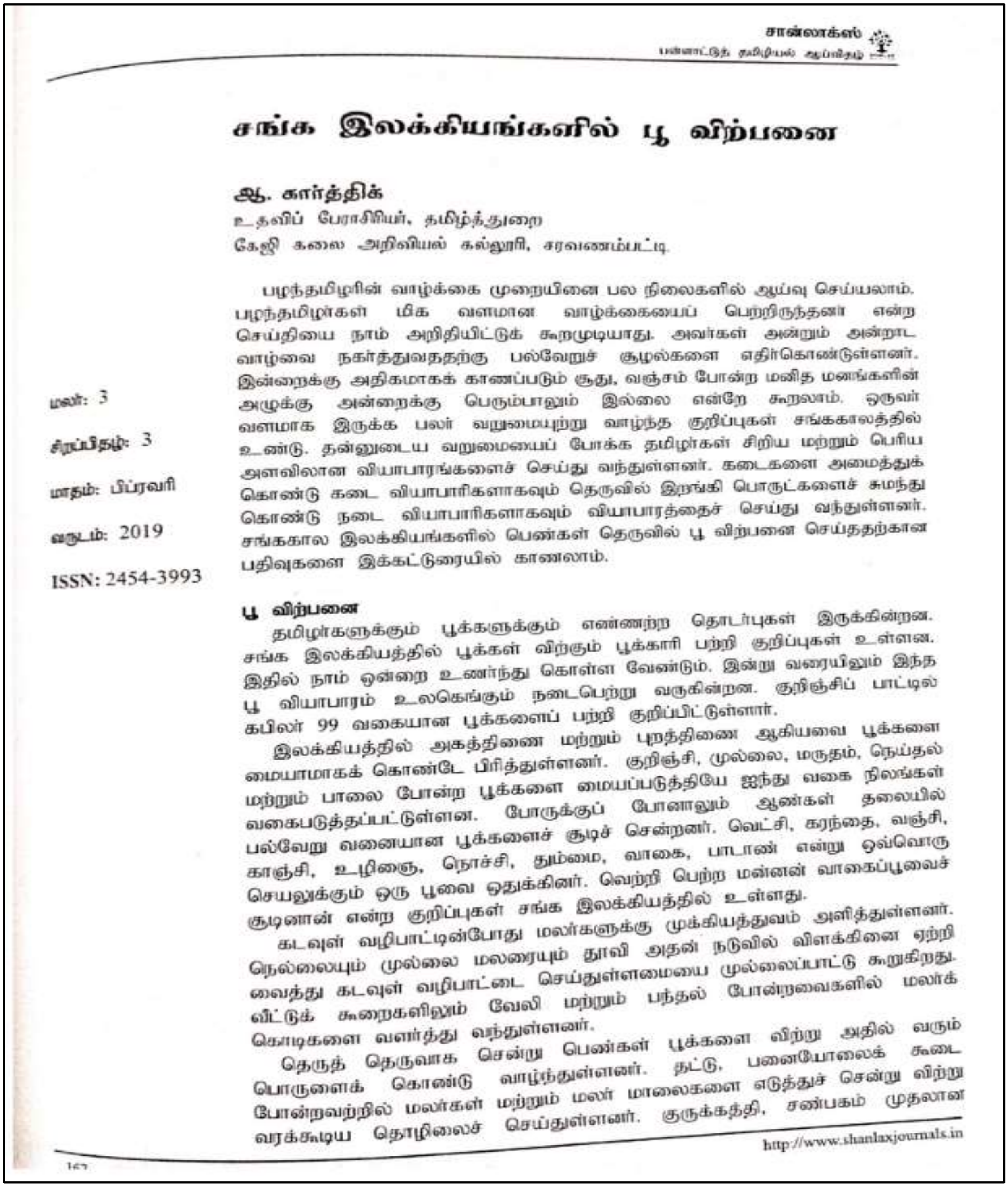

சங்க இலக்கியங்களில் பூ விற்பனை

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கேஜி கலை அறிவியல் கல்லூரி, சரவணம்பட்டி

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பழந்தமிழரின் வாழ்க்கை முறையினை பல நிலைகளில் ஆய்வு செய்யலாம். பழந்தமிழர்கள் மிக வளமான வாழ்க்கையைப் பெற்றிருந்தனர் என்ற செய்தியை நாம் அறிதியிட்டுக் கூறமுடியாது. அவர்கள் அன்றும் அன்றாட வாழ்வை நகர்த்துவததற்கு பல்வேறுச் சூழல்களை எதிர்கொண்டுள்ளனர். இன்றைக்கு அதிகமாகக் காணப்படும் சூது, வஞ்சம் போன்ற மனித மனங்களின் அழுக்கு அன்றைக்கு பெரும்பாலும் இல்லை என்றே கூறலாம். ஒருவர் வளமாக இருக்க பலர் வறுமையுற்று வாழ்ந்த குறிப்புகள் சங்ககாலத்தில் உண்டு. தன்னுடைய வறுமையைப் போக்க தமிழர்கள் சிறிய மற்றும் பெரிய அளவிலான வியாபாரங்களைச் செய்து வந்துள்ளனர். கடைகளை அமைத்துக் கொண்டு கடை வியாபாரிகளாகவும் தெருவில் இறங்கி பொருட்களைச் சுமந்து கொண்டு நடை வியாபாரிகளாகவும் வியாபாரத்தைச் செய்து வந்துள்ளனர். சங்ககால இலக்கியங்களில் பெண்கள் தெருவில் பூ விற்பனை செய்ததற்கான பதிவுகளை இக்கட்டுரையில் காணலாம்.

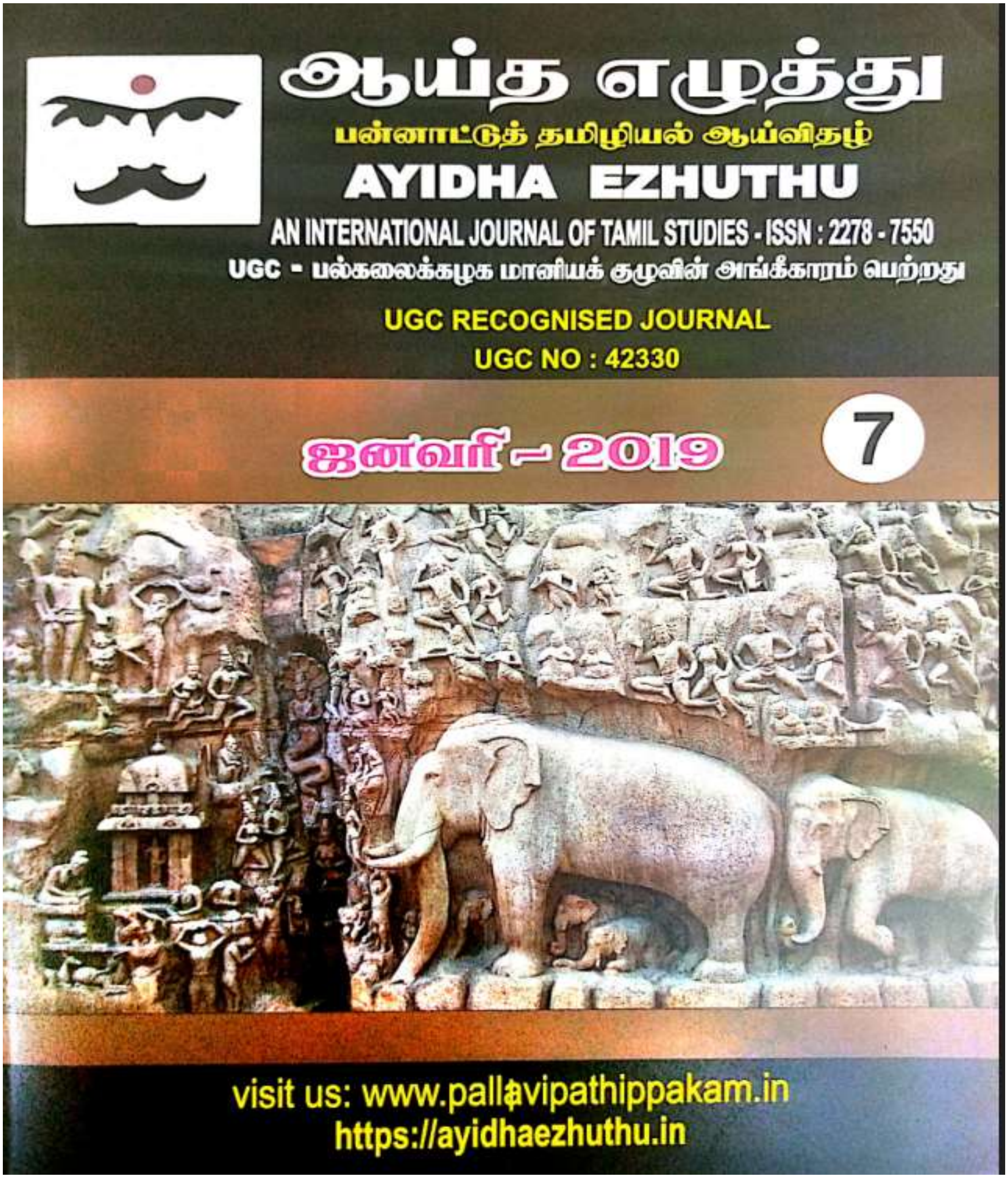
பூ விற்பனை

தமிழர்களுக்கும் பூக்களுக்கும் எண்ணற்ற தொடர்புகள் இருக்கின்றன. சங்க இலக்கியத்தில் பூக்கள் விற்கும் பூக்காரி பற்றி குறிப்புகள் உள்ளன. இதில் நாம் ஒன்றை உணர்ந்து கொள்ள வேண்டும். இன்று வரையிலும் இந்த பூ வியாபாரம் உலகெங்கும் நடைபெற்று வருகின்றன. குறிஞ்சிப் பாட்டில் கபிலர் 99 வகையான பூக்களைப் பற்றி குறிப்பிட்டுள்ளார்.

இலக்கியத்தில் அகத்திணை மற்றும் புறத்திணை ஆகியவை பூக்களை மையாமாகக் கொண்டே பிரித்துள்ளனர். குறிஞ்சி, முல்லை, மருதம், நெய்தல் மற்றும் பாலை போன்ற பூக்களை மையப்படுத்தியே ஐந்து வகை நிலங்கள் வகைபடுத்தப்பட்டுள்ளன. போருக்குப் போனாலும் ஆண்கள் தலையில் பல்வேறு வனையான பூக்களைச் சூடிச் சென்றனர். வெட்சி, கரந்தை, வஞ்சி, காஞ்சி, உழிஞை, நொச்சி, தும்மை, வாகை, பாடாண் என்று ஒவ்வொரு செயலுக்கும் ஒரு பூவை ஒதுக்கினர். வெற்றி பெற்ற மன்னன் வாகைப்பூவைச் சூடினான் என்ற குறிப்புகள் சங்க இலக்கியத்தில் உள்ளது.

கடவுள் வழிபாட்டின்போது மலர்களுக்கு முக்கியத்துவம் அளித்துள்ளனர். நெல்லையும் முல்லை மலரையும் தூவி அதன் நடுவில் விளக்கினை ஏற்றி வைத்து கடவுள் வழிபாட்டை செய்துள்ளமையை முல்லைப்பாட்டு கூறுகிறது. வீட்டுக் கூறைகளிலும் வேலி மற்றும் பந்தல் போன்றவைகளில் மலர்க் கொடிகளை வளர்த்து வந்துள்ளனர்.

தெருத் தெருவாக சென்று பெண்கள் பூக்களை விற்று அதில் வரும் பொருளைக் கொண்டு வாழ்ந்துள்ளனர். தட்டு, பனையோலைக் கூடை போன்றவற்றில் மலர்கள் மற்றும் மலர் மாலைகளை எடுத்துச் சென்று விற்று வரக்கூடிய தொழிலைச் செய்துள்ளனர். குருக்கத்தி, சண்பகம் முதலான



ஆய்த எழுத்து

பன்னாட்டுத் தமிழியல் ஆய்விதழ்

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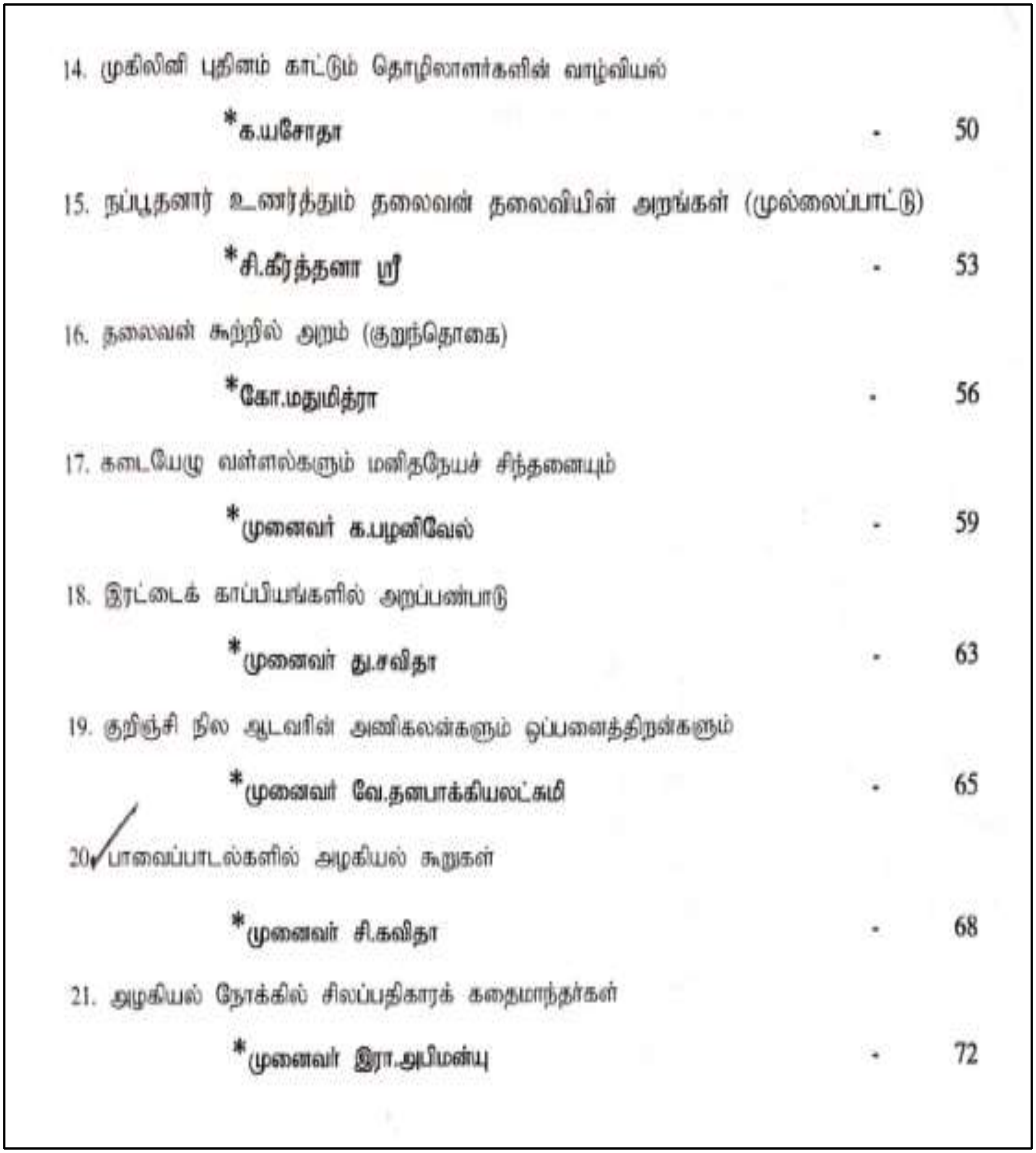

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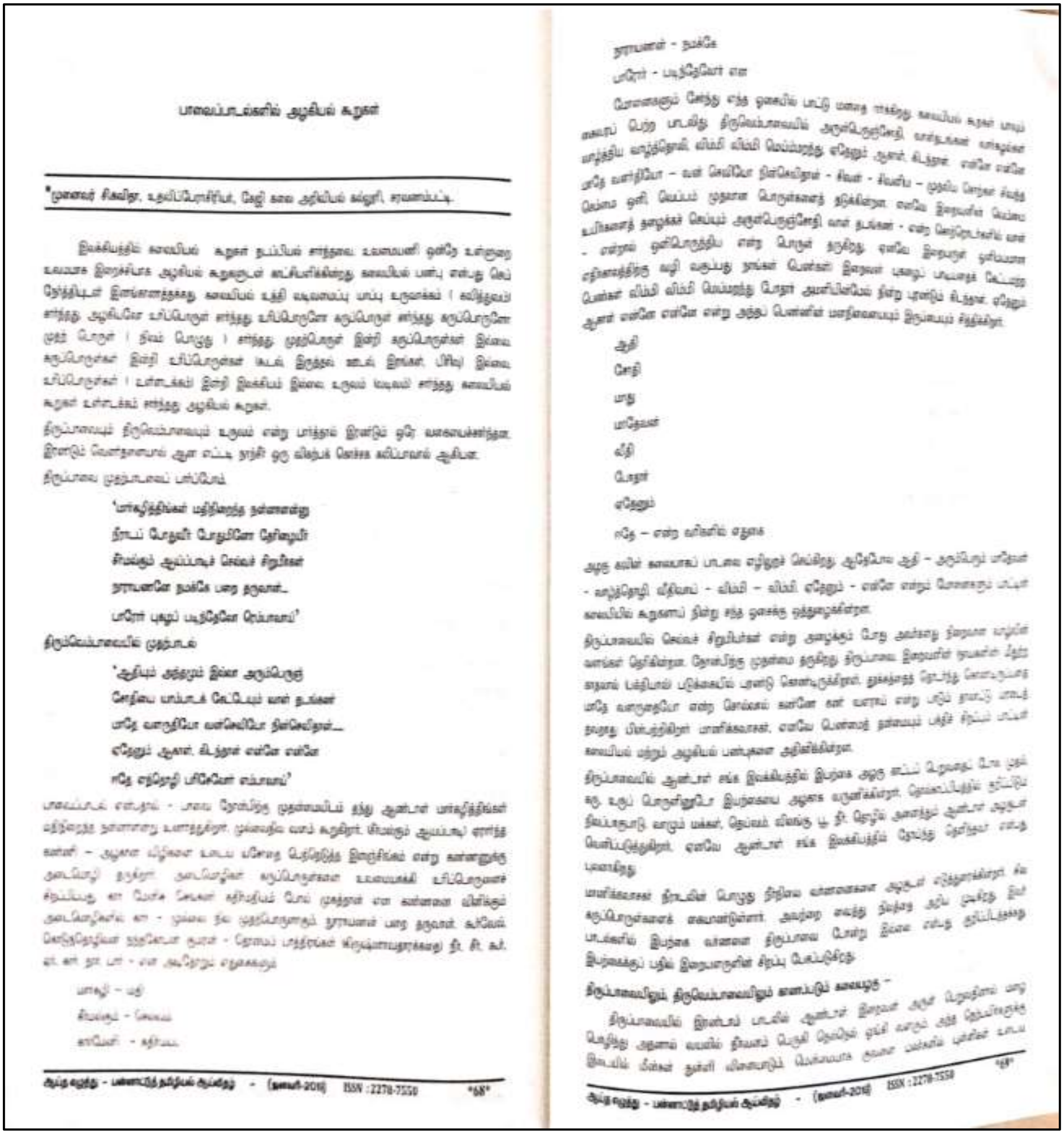

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சான்லாக்ஸ் பன்னாட்டுத்
தமிழியல் ஆய்விதழ்

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ஸ்ரீ எஸ். இராமசாமி நாயுடு
ஞாபகார்த்தக் கல்லூரி (தன்னாட்சி), சாத்தூர்

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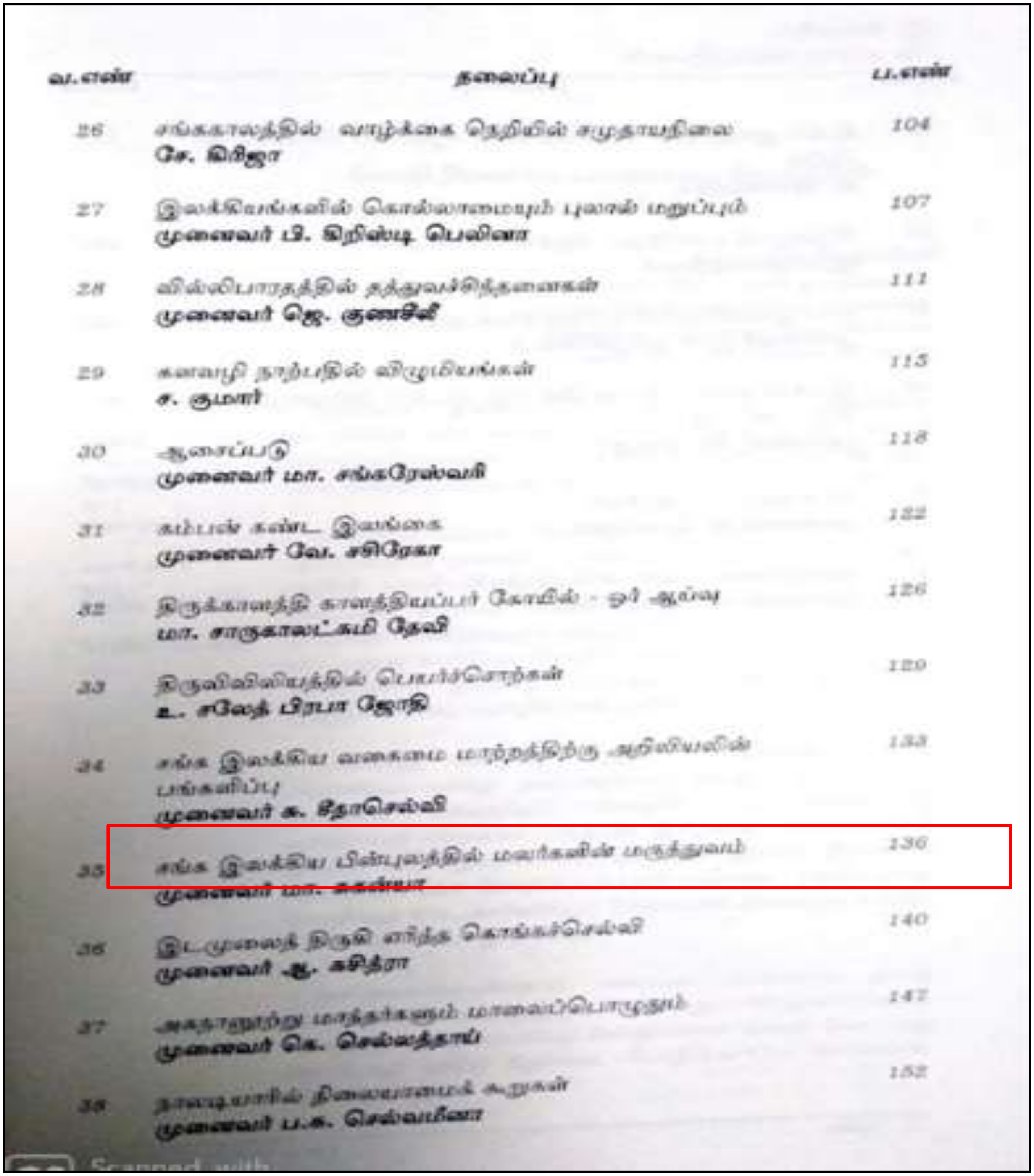

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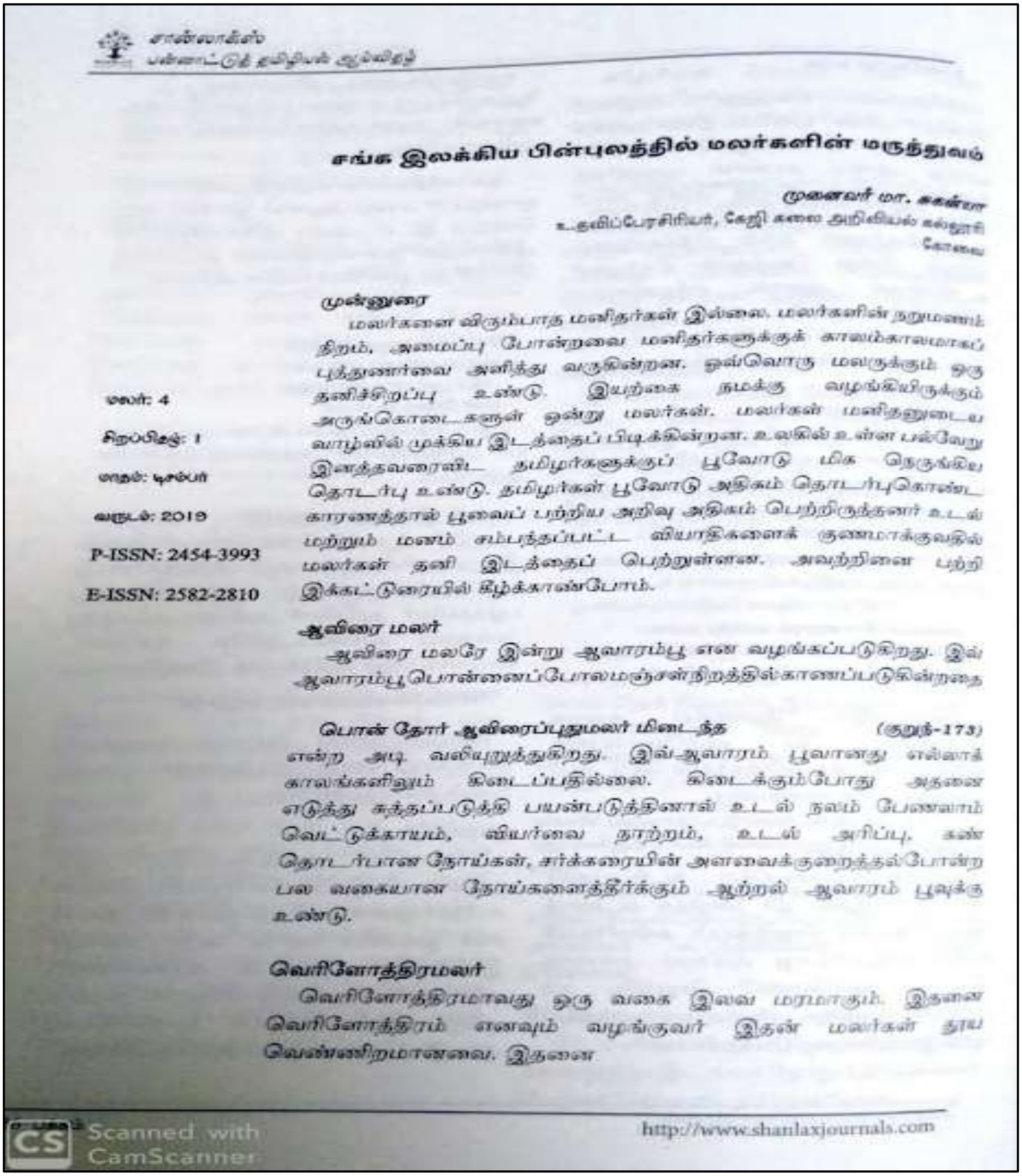

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முன்னுரை

மலர்களை விரும்பாத மனிதர்கள் இல்லை. மலர்களின் நறுமணம், திறம், அமைப்பு போன்றவை மனிதர்களுக்குக் காலங்காலமாகப் புத்துணர்வை அளித்து வருகின்றன. ஒவ்வொரு மலருக்கும் ஒரு தனிச்சிறப்பு உண்டு. இயற்கை நமக்கு வழங்கியிருக்கும் அருங்கொடைகளுள் ஒன்று மலர்கள். மலர்கள் மனிதனுடைய வாழ்வில் முக்கிய இடத்தைப் பிடிக்கின்றன. உலகில் உள்ள பல்வேறு இனத்தவரைவிட தமிழர்களுக்குப் பூவோடு மிக நெருங்கிய தொடர்பு உண்டு. தமிழர்கள் பூவோடு அதிகம் தொடர்புகொண்ட காரணத்தால் பூவைப் பற்றிய அறிவு அதிகம் பெற்றிருந்தனர் உடல் மற்றும் மனம் சம்பந்தப்பட்ட வியாதிகளைக் குணமாக்குவதில் மலர்கள் தனி இடத்தைப் பெற்றுள்ளன. அவற்றினை பற்றி இக்கட்டுரையில் கீழ்க்காண்போம்.

ஆவிரை மலர்

ஆவிரை மலரே இன்று ஆவாரம்பூ என வழங்கப்படுகிறது. இவ் ஆவாரம்பூ பொன்னைப்போலமஞ்சள்நிறத்தில்காணப்படுகின்றதை

பொன் தோர் ஆவிரைப்புதுமலர் மிடைந்த (குறுந்-173)

என்ற அடி வலியுறுத்துகிறது. இவ்ஆவாரம் பூவானது எல்லாக் காலங்களிலும் கிடைப்பதில்லை. கிடைக்கும்போது அதனை எடுத்து சுத்தப்படுத்தி பயன்படுத்தினால் உடல் நலம் பேணலாம் வெட்டுக்காயம், வியர்வை நாற்றம், உடல் அரிப்பு, கண் தொடர்பான நோய்கள், சர்க்கரையின் அளவைக்குறைத்தல்போன்ற பல வகையான நோய்களைத்தீர்க்கும் ஆற்றல் ஆவாரம் பூவுக்கு உண்டு.

வெரிளோத்திரமலர்

வெரிளோத்திரமாவது ஒரு வகை இலவ மரமாகும். இதனை வெரிளோத்திரம் எனவும் வழங்குவர் இதன் மலர்கள் தூய வெண்ணிறமானவை. இதனை

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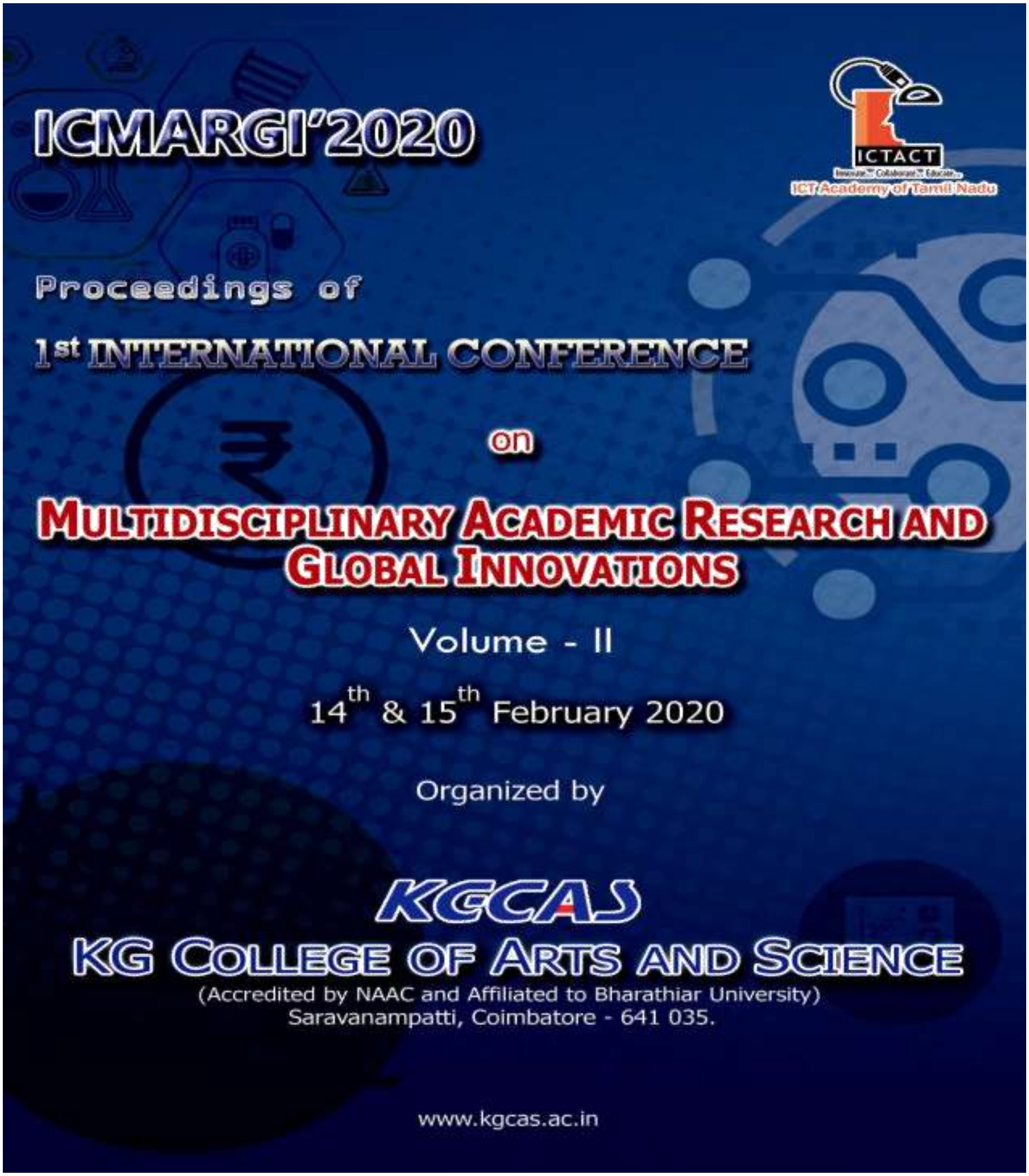

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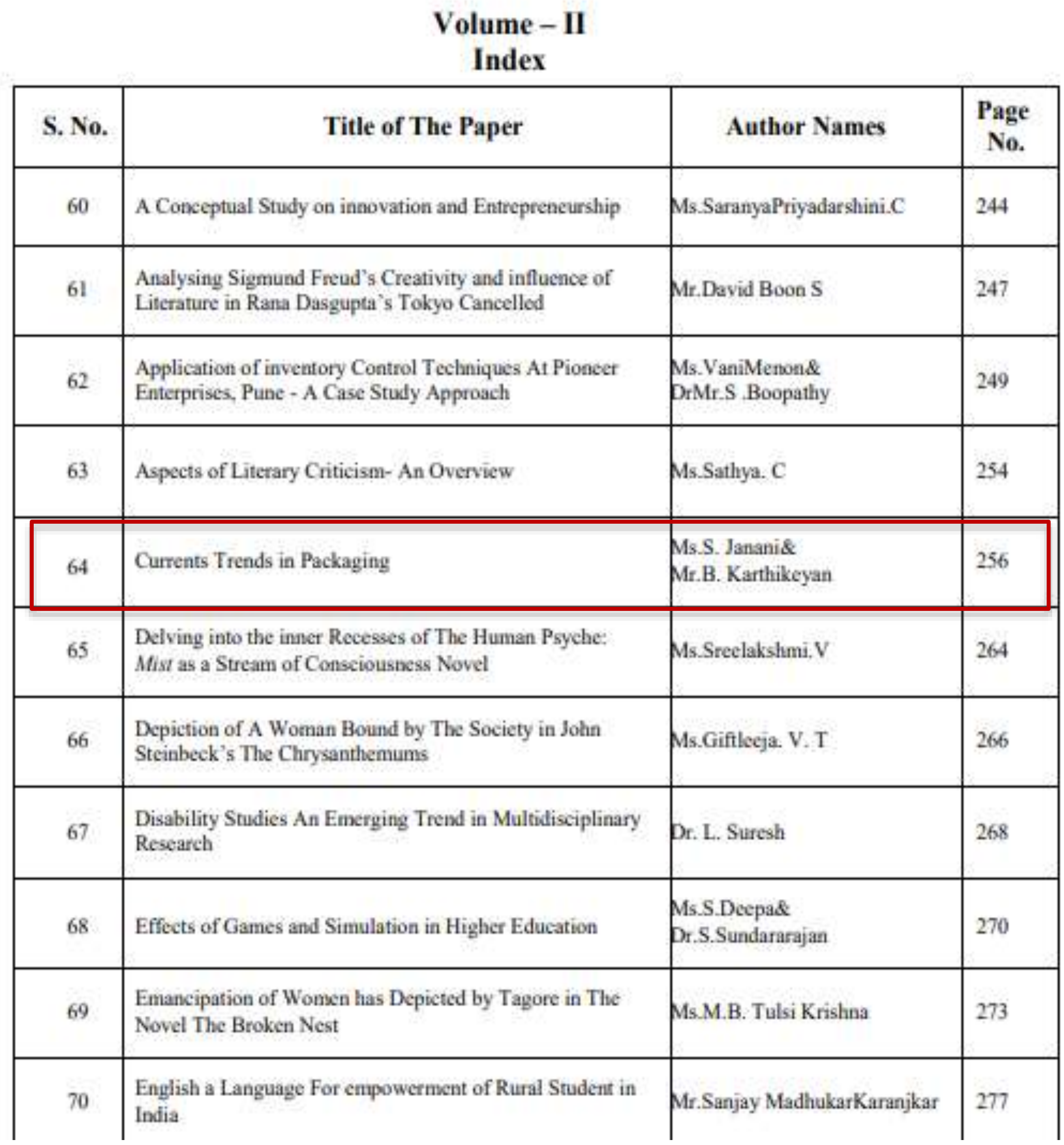

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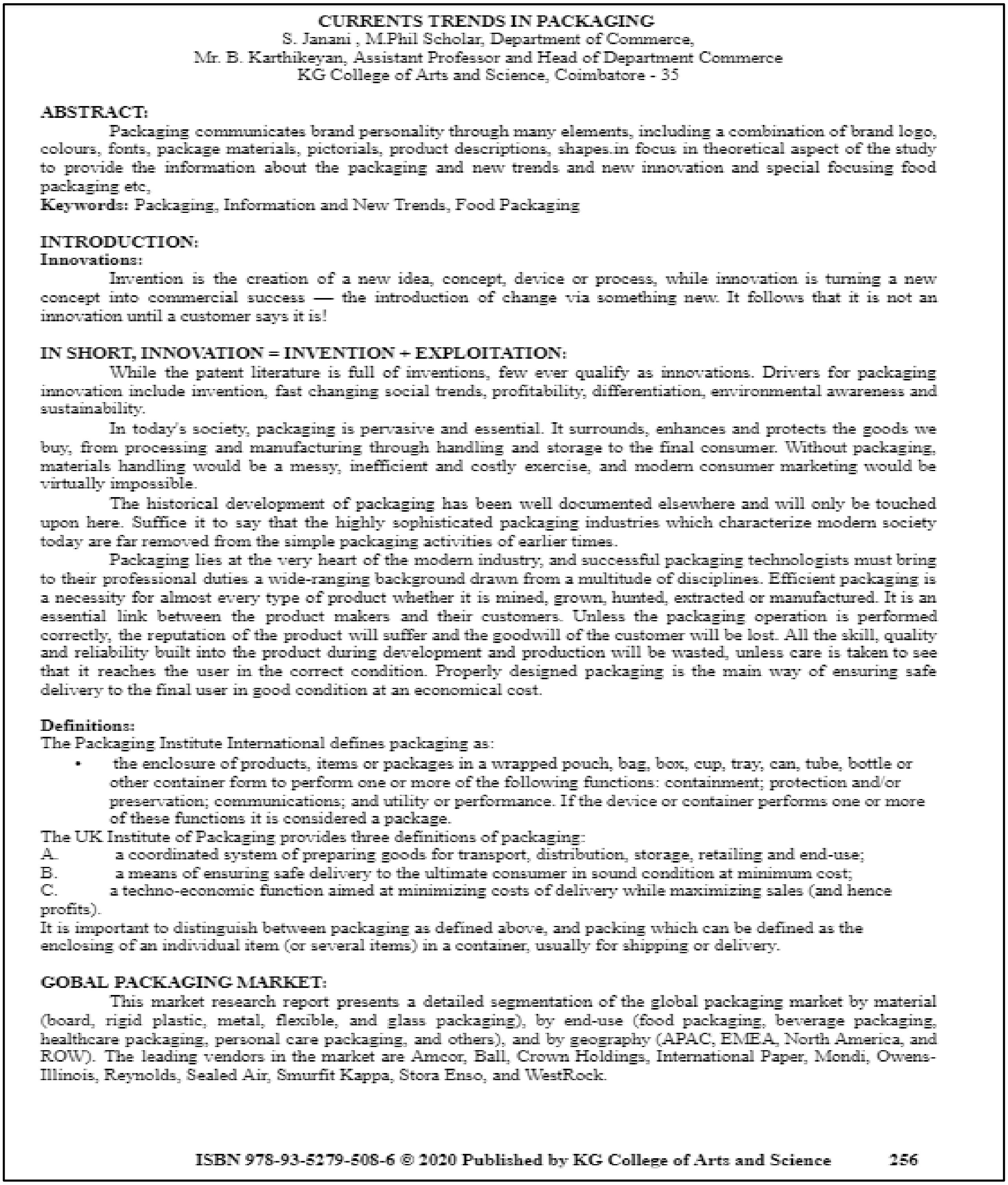


CURRENTS TRENDS IN PACKAGING

S. Janani , M.Phil Scholar, Department of Commerce,
Mr. B. Karthikeyan, Assistant Professor and Head of Department Commerce
KG College of Arts and Science, Coimbatore - 35

ABSTRACT:

Packaging communicates brand personality through many elements, including a combination of brand logo, colours, fonts, package materials, pictorials, product descriptions, shapes.in focus in theoretical aspect of the study to provide the information about the packaging and new trends and new innovation and special focusing food packaging etc,

Keywords: Packaging, Information and New Trends, Food Packaging

INTRODUCTION:

Innovations:

Invention is the creation of a new idea, concept, device or process, while innovation is turning a new concept into commercial success — the introduction of change via something new. It follows that it is not an innovation until a customer says it is!

IN SHORT, INNOVATION = INVENTION + EXPLOITATION:

While the patent literature is full of inventions, few ever qualify as innovations. Drivers for packaging innovation include invention, fast changing social trends, profitability, differentiation, environmental awareness and sustainability.

In today's society, packaging is pervasive and essential. It surrounds, enhances and protects the goods we buy, from processing and manufacturing through handling and storage to the final consumer. Without packaging, materials handling would be a messy, inefficient and costly exercise, and modern consumer marketing would be virtually impossible.

The historical development of packaging has been well documented elsewhere and will only be touched upon here. Suffice it to say that the highly sophisticated packaging industries which characterize modern society today are far removed from the simple packaging activities of earlier times.

Packaging lies at the very heart of the modern industry, and successful packaging technologists must bring to their professional duties a wide-ranging background drawn from a multitude of disciplines. Efficient packaging is a necessity for almost every type of product whether it is mined, grown, hunted, extracted or manufactured. It is an essential link between the product makers and their customers. Unless the packaging operation is performed correctly, the reputation of the product will suffer and the goodwill of the customer will be lost. All the skill, quality and reliability built into the product during development and production will be wasted, unless care is taken to see that it reaches the user in the correct condition. Properly designed packaging is the main way of ensuring safe delivery to the final user in good condition at an economical cost.

Definitions:

The Packaging Institute International defines packaging as:

- the enclosure of products, items or packages in a wrapped pouch, bag, box, cup, tray, can, tube, bottle or other container form to perform one or more of the following functions: containment; protection and/or preservation; communications; and utility or performance. If the device or container performs one or more of these functions it is considered a package.

The UK Institute of Packaging provides three definitions of packaging:

A. a coordinated system of preparing goods for transport, distribution, storage, retailing and end-use;

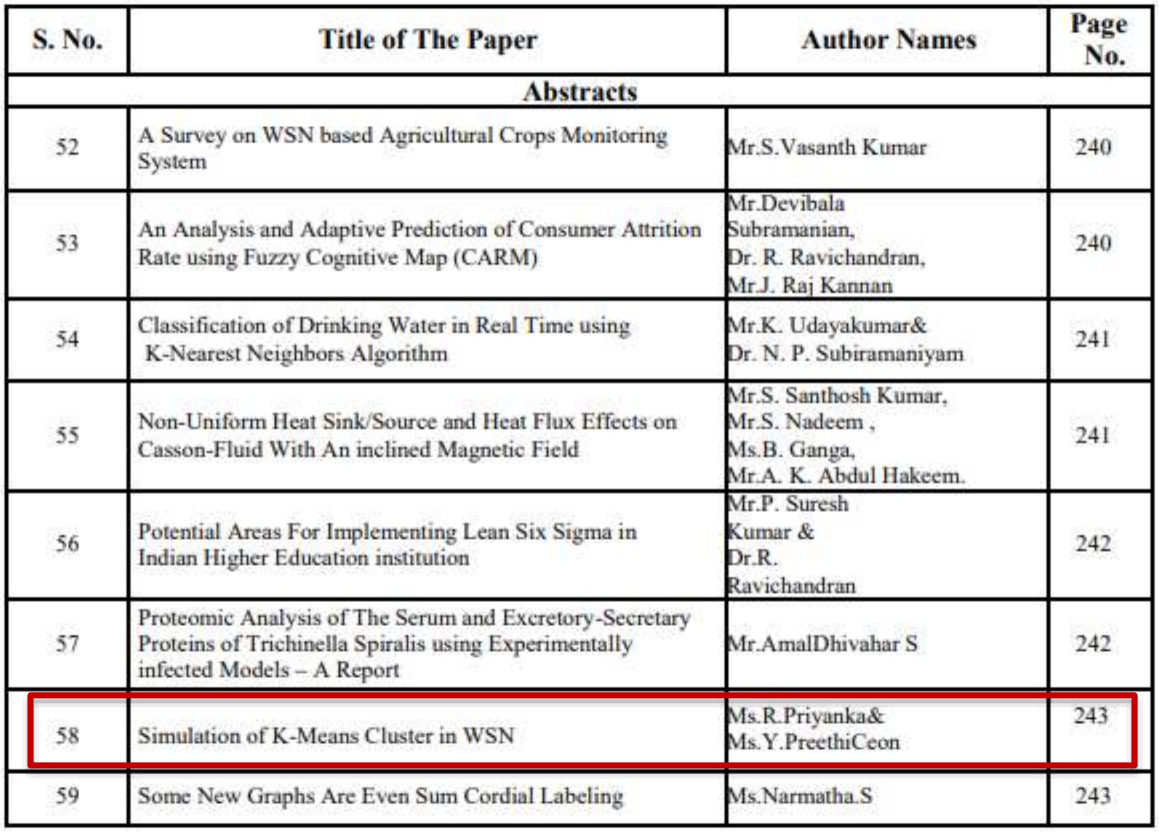
B. a means of ensuring safe delivery to the ultimate consumer in sound condition at minimum cost;

C. a techno-economic function aimed at minimizing costs of delivery while maximizing sales (and hence profits).

It is important to distinguish between packaging as defined above, and packing which can be defined as the enclosing of an individual item (or several items) in a container, usually for shipping or delivery.

GOBAL PACKAGING MARKET:

This market research report presents a detailed segmentation of the global packaging market by material (board, rigid plastic, metal, flexible, and glass packaging), by end-use (food packaging, beverage packaging, healthcare packaging, personal care packaging, and others), and by geography (APAC, EMEA, North America, and ROW). The leading vendors in the market are Amcor, Ball, Crown Holdings, International Paper, Mondi, Owens-Illinois, Reynolds, Sealed Air, Smurfit Kappa, Stora Enso, and WestRock.



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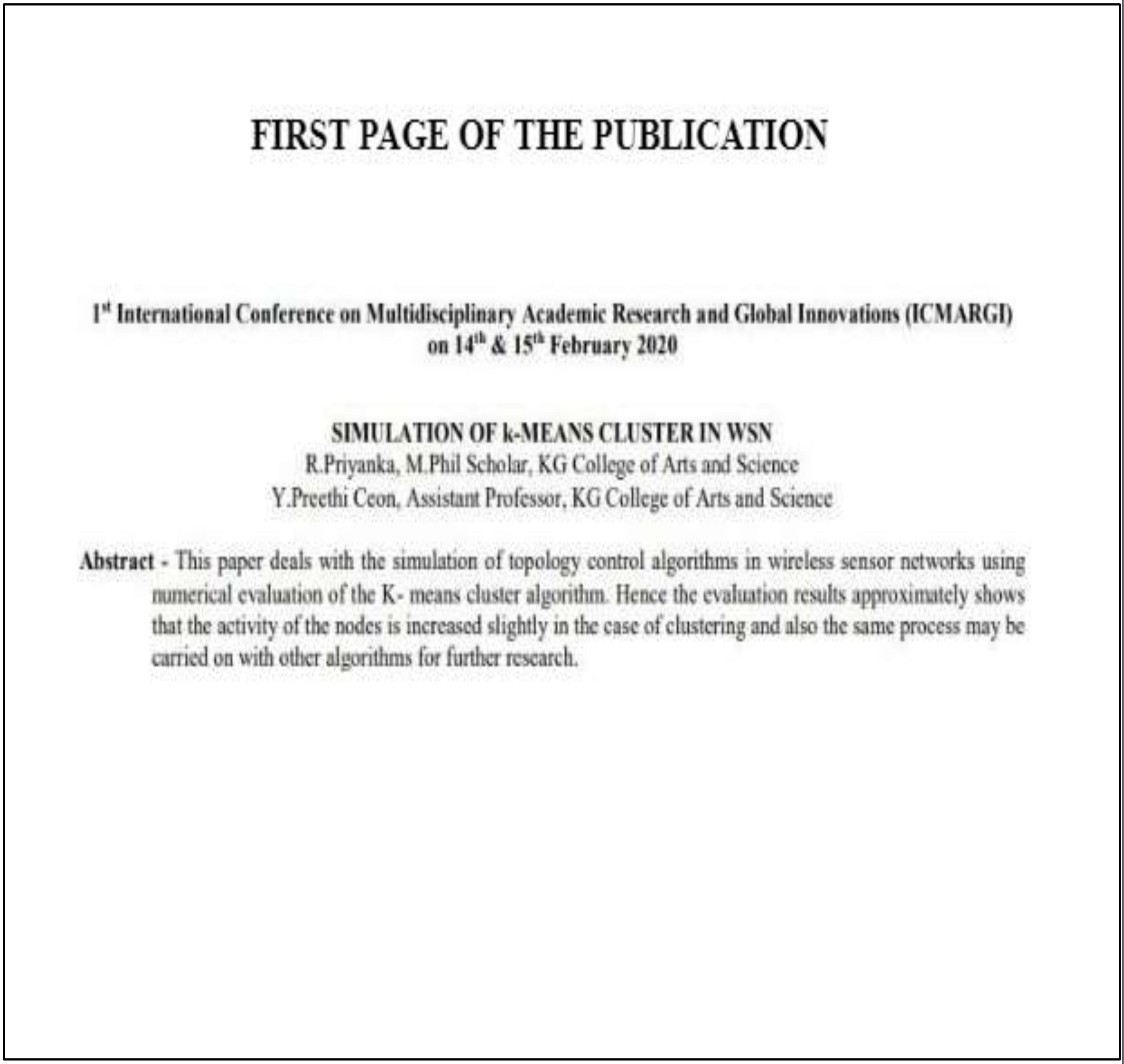

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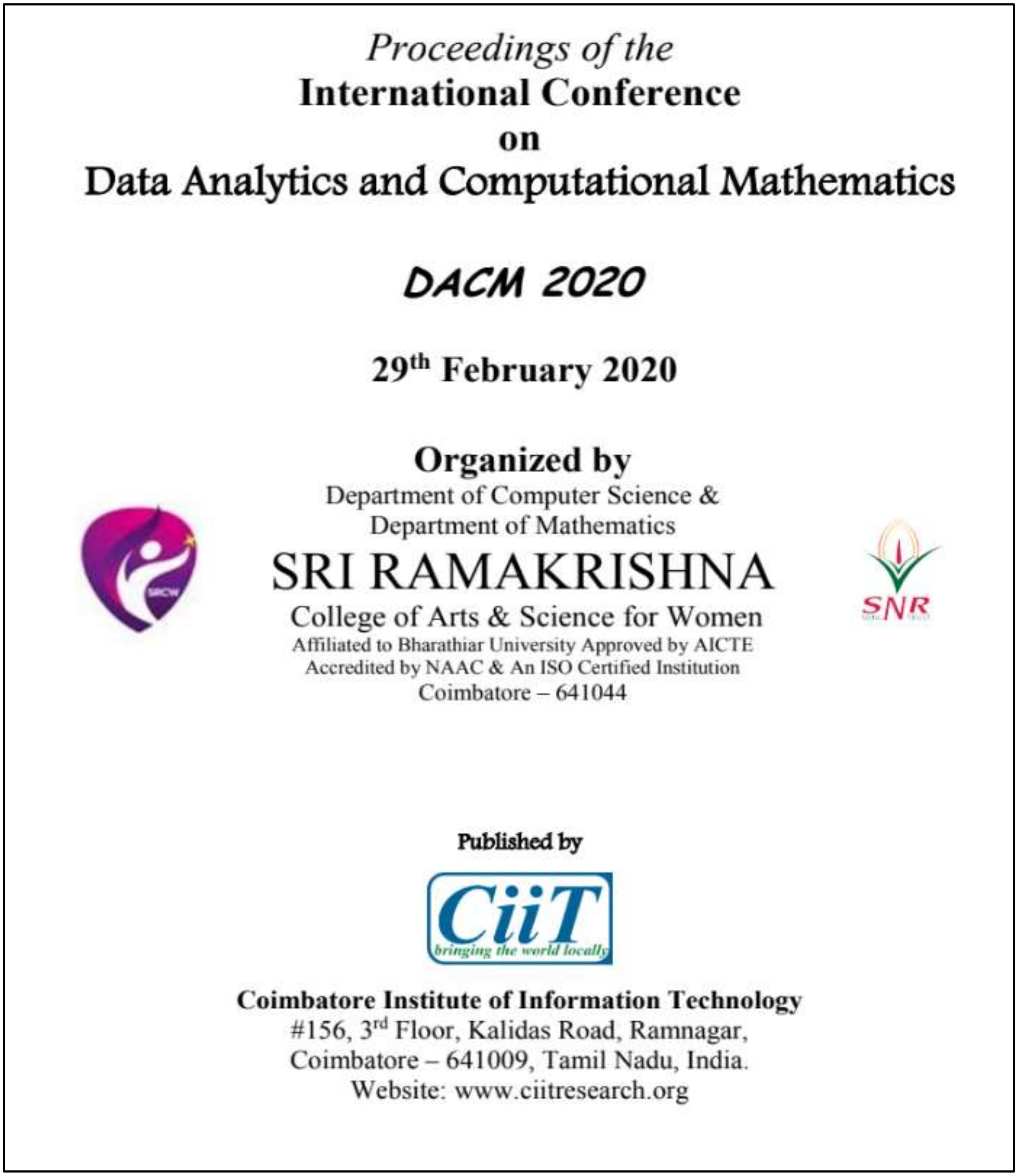
SIMULATION OF k-MEANS CLUSTER IN WSN

R.Priyanka, M.Phil Scholar, KG College of Arts and Science
Y.Preethi Ceon, Assistant Professor, KG College of Arts and Science

Abstract - This paper deals with the simulation of topology control algorithms in wireless sensor networks using numerical evaluation of the K- means cluster algorithm. Hence the evaluation results approximately shows that the activity of the nodes is increased slightly in the case of clustering and also the same process may be carried on with other algorithms for further research.



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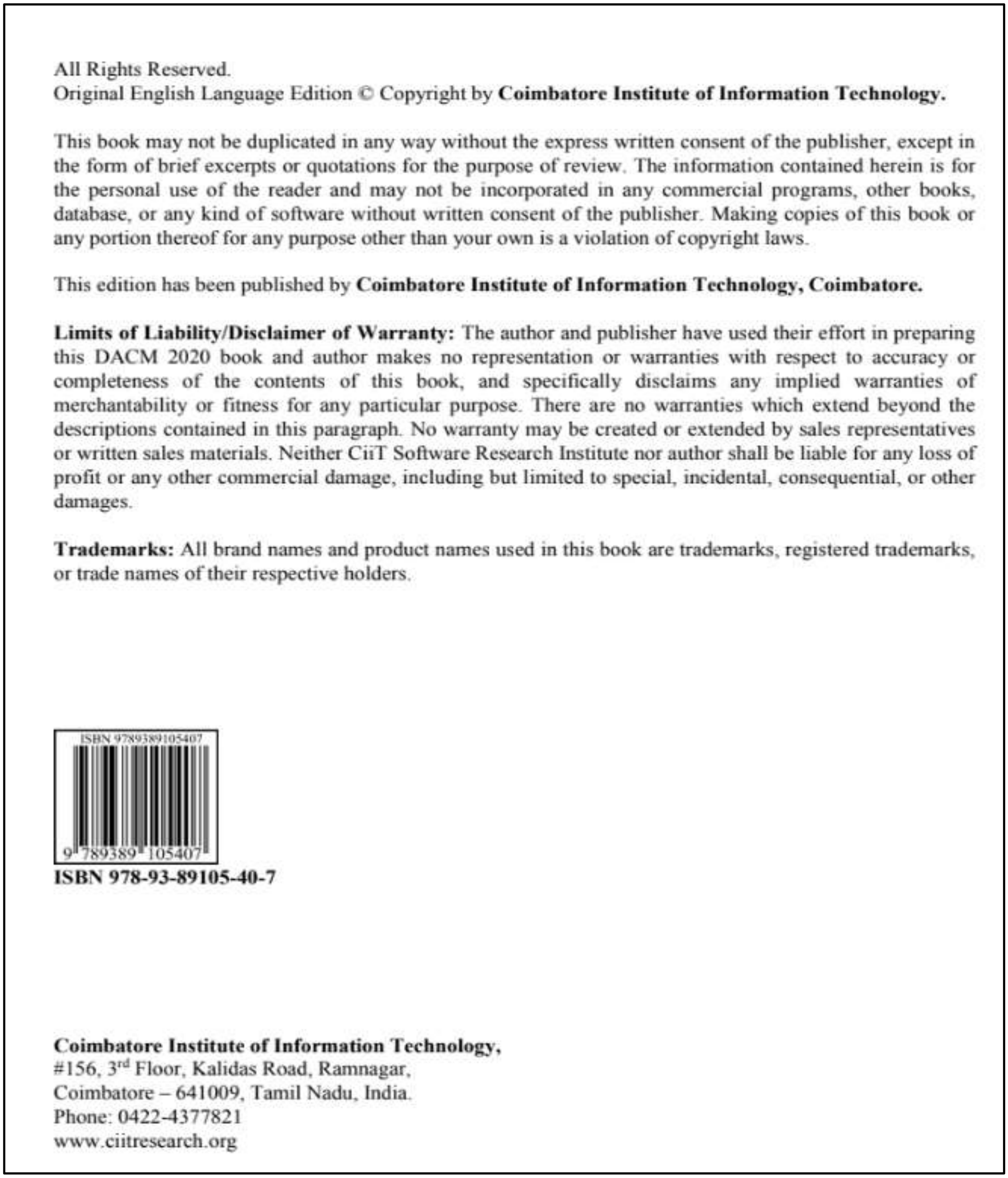

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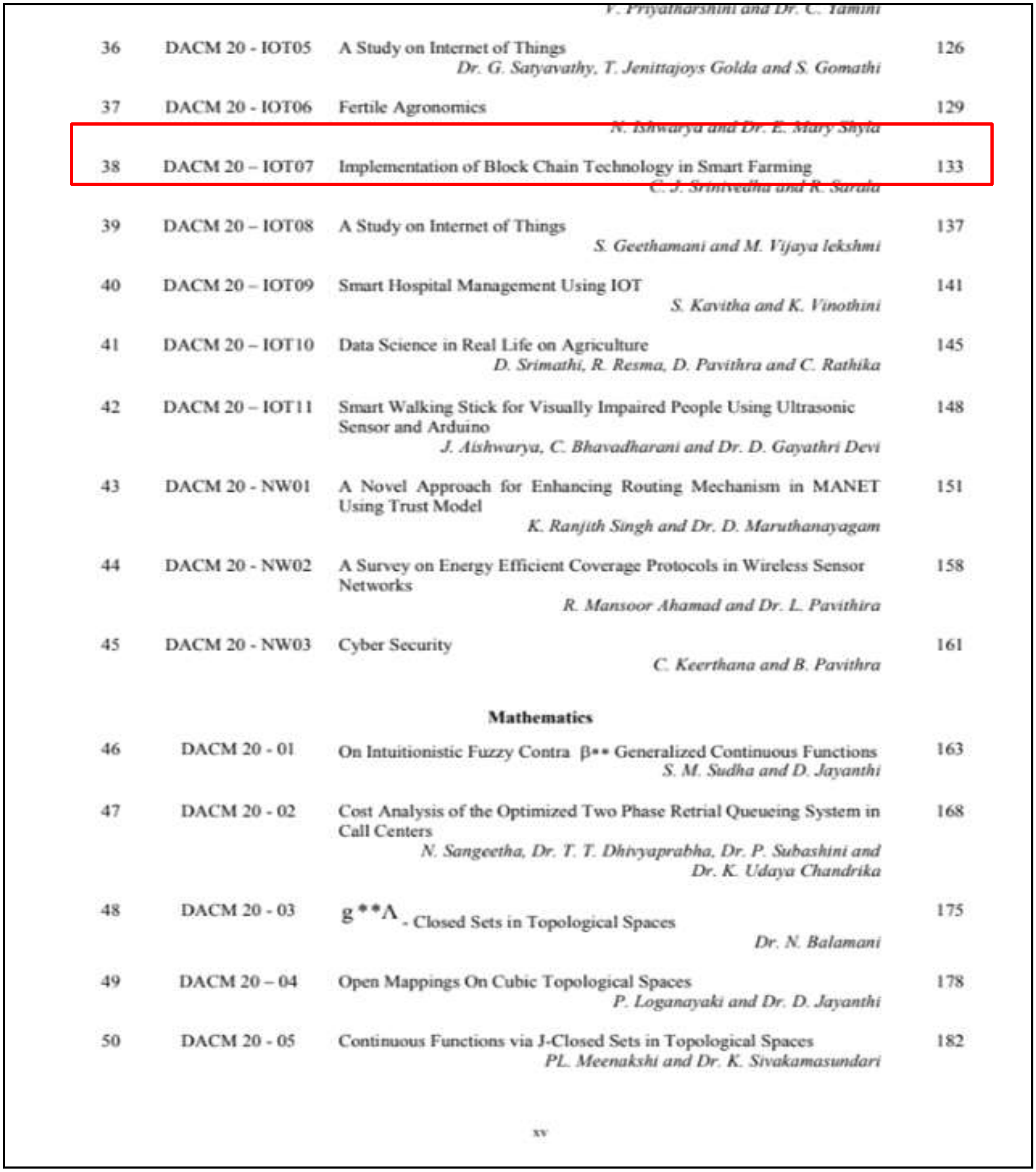

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International Conference on Data Analytics & Computational Mathematics DACM 2020, 29th February, 2020

Implementation of Block Chain Technology in Smart Farming

C. J. Srinivedha[1] and R. Sarala[2]

[1] Research Scholar,[2]Assistant Professor,
Department of Computer Science,
KG College of Arts and Science, Coimbatore.

***Abstract*---**This paper deals with block chain algorithm, by which in increasing population which includes scarcity of food production by farmers in which it leads to increase in rate of food products. So, to solve this problem to identify that Drones and Sensors are used in farming field and controlled by human for each and every process. But some of the technical networking barriers exist by which it leads to networking issues to solve this we use Block chain algorithm in which even though in rural and urban areas where network lacks it does not the process of communication and work continues smoothly according to our instructions and commands each and every instructions are given manually to avoid confusion [2].

***Keywords*---**Smart Farming, Block Chain Technology, Monitoring

I. INTRODUCTION

INCREASING population leads to scarcity of food, so to solve this problem now-a-days "**SMART FARMING**" is used in farming to increase the production of food for the increasing population.

It is mainly for crop-yielding, water spraying, monitoring nutrient level in food, growth of plants, weeding and harvesting plants. But it's monitored using sensor networks for all the working principle sensors are placed and they are monitored using Internet, Intranet, Bluetooth, Wi-Fi and so on., using Internet of Things(IoT) and Information Communication Technologies(ICT). But without a network connection nothing is possible in this process. But in rural places network coverage in all places is all places is not possible because of farming fields are calculated in acres. So, to solve networking issues in smart farming we use "**BLOCKCHAIN ALGORITHM**", by using this algorithm we could able to solve the networking problems that occurs in smart farming.

Even though in United Kingdom, Germany, Netherlands and Spain use Smart Farming technologies such as Agri-Food Production, Farming 4.0, Dike Monitoring project, Viticulture there exist some technical barriers are as follows.[4]

In the proposed system we use Application such as,

- Water and Nutrition monitoring
- Disease and Bug monitoring
- Soil Monitoring
- Crop health Monitoring
- Machinery i.e., Drones, Sensor, etc.,
- Environment

II. TECHNOLOGY DRIVERS AND BARRIERS

1) M2M based monitering and tracing becoming more mainstream across industries.
2) Improving data management technologies to manage tidal wave of M2M data.
3) Rural wireless and broadband coverage patchy.

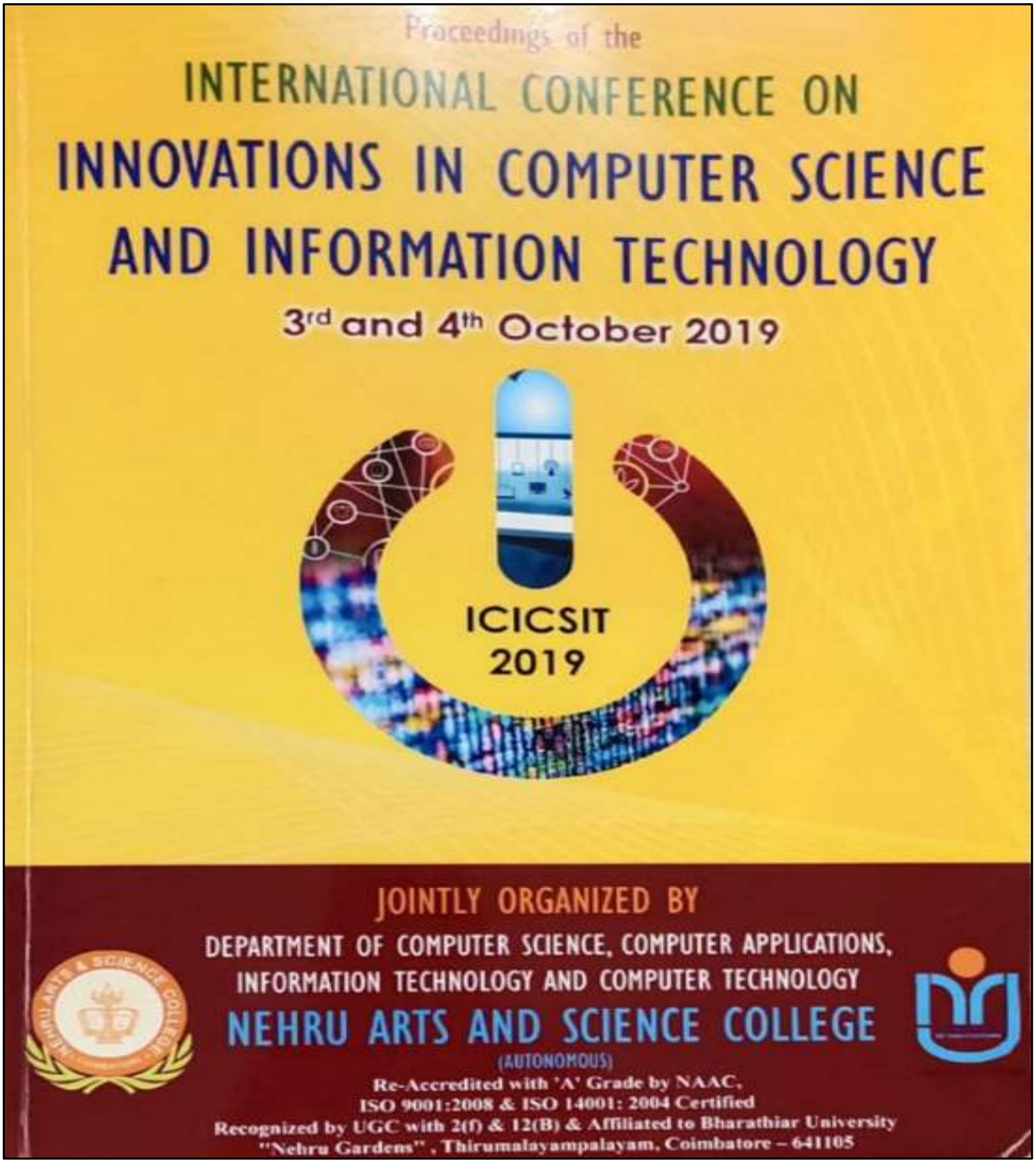
III. WATER AND NUTRITION MONITERING

In this system it Spray water, insecticides to the plants. It's capacity is 4 to5 acres of using distance. It can assist with guidance approximately methods to optimize water usage as consistent with the requirement of crop and soil (Crops, flower, fruits).

Fig 1:Spraying Water and Pesticides

In case of restricted water resources, the farmers can come across and limit watering to only at critical section of the crop cycle as a consequence not affecting standard yield.

The system can also help avoid over irrigation, as a consequence protective crops from diseases, saving water, power, are expecting early onset of illnesses and provide advisories. In case of erratic electricity farmers can activate the irrigation equipment (sprinklers, drip, pumps) with the convenience of cell and stopping leaching of nutrients from soil.



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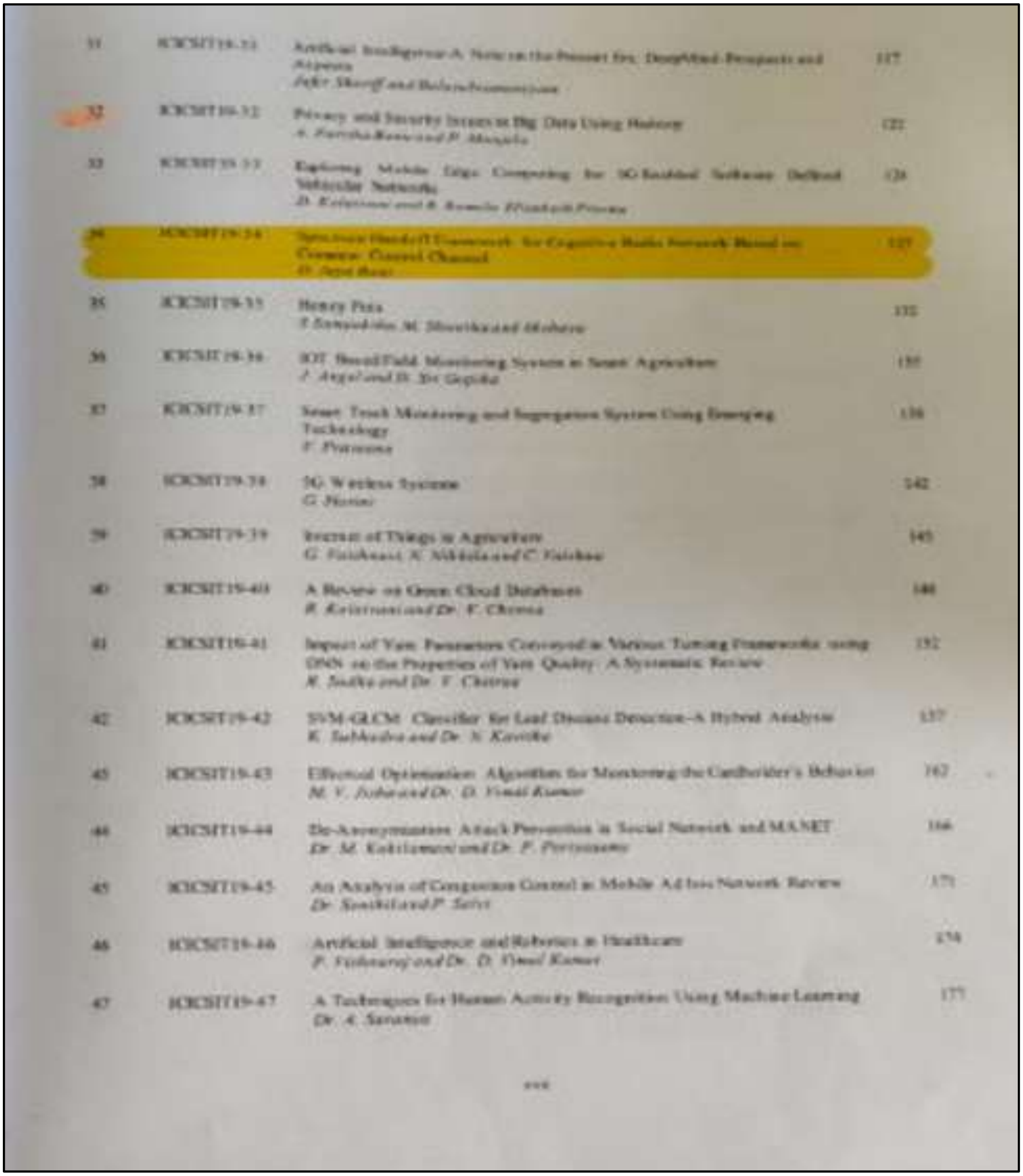

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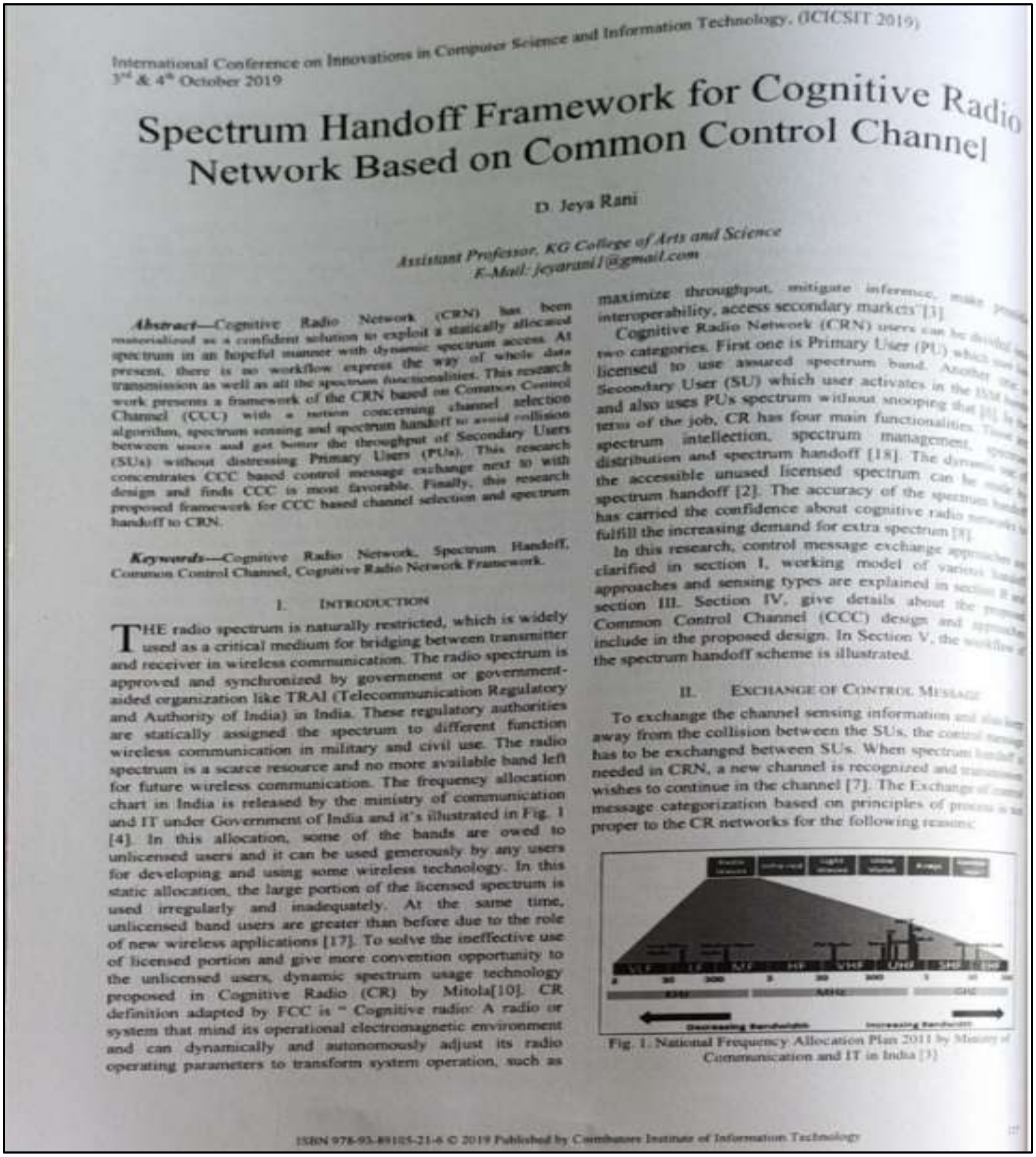

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Spectrum Handoff Framework for Cognitive Radio Network Based on Common Control Channel

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***Abstract*—**Cognitive Radio Network (CRN) has been materialized as a confident solution to exploit a statically allocated spectrum in an hopeful manner with dynamic spectrum access. At present, there is no workflow express the way of whole data transmission as well as all the spectrum functionalities. This research work presents a framework of the CRN based on Common Control Channel (CCC) with a notion concerning channel selection algorithm, spectrum sensing and spectrum handoff to avoid collision between users and get better the throughput of Secondary Users (SUs) without distressing Primary Users (PUs). This research concentrates CCC based control message exchange next to with design and finds CCC is most favorable. Finally, this research proposed framework for CCC based channel selection and spectrum handoff to CRN.

***Keywords*—**Cognitive Radio Network, Spectrum Handoff, Common Control Channel, Cognitive Radio Network Framework.

I. INTRODUCTION

THE radio spectrum is naturally restricted, which is widely used as a critical medium for bridging between transmitter and receiver in wireless communication. The radio spectrum is approved and synchronized by government or government-aided organization like TRAI (Telecommunication Regulatory and Authority of India) in India. These regulatory authorities are statically assigned the spectrum to different function wireless communication in military and civil use. The radio spectrum is a scarce resource and no more available band left for future wireless communication. The frequency allocation chart in India is released by the ministry of communication and IT under Government of India and it's illustrated in Fig. 1 [4]. In this allocation, some of the bands are owed to unlicensed users and it can be used generously by any users for developing and using some wireless technology. In this static allocation, the large portion of the licensed spectrum is used irregularly and inadequately. At the same time, unlicensed band users are greater than before due to the role of new wireless applications [17]. To solve the ineffective use of licensed portion and give more convention opportunity to the unlicensed users, dynamic spectrum usage technology proposed in Cognitive Radio (CR) by Mitola[10]. CR definition adapted by FCC is " Cognitive radio: A radio or system that mind its operational electromagnetic environment and can dynamically and autonomously adjust its radio operating parameters to transform system operation, such as maximize throughput, mitigate inference, make [illegible] interoperability, access secondary markets"[3]

Cognitive Radio Network (CRN) users can be divided [illegible] two categories. First one is Primary User (PU) which [illegible] licensed to use assured spectrum band. Another one [illegible] Secondary User (SU) which user activates in the ISM [illegible] and also uses PUs spectrum without snooping that [8]. In [illegible] terms of the job, CR has four main functionalities. These [illegible] spectrum intellection, spectrum management, [illegible] distribution and spectrum handoff [18]. The dynamic [illegible] the accessible unused licensed spectrum can be made by spectrum handoff [2]. The accuracy of the spectrum handoff has carried the confidence about cognitive radio networks [illegible] fulfill the increasing demand for extra spectrum [8].

In this research, control message exchange approaches are clarified in section I, working model of various handoff approaches and sensing types are explained in section II and section III. Section IV, give details about the proposed Common Control Channel (CCC) design and approaches include in the proposed design. In Section V, the workflow of the spectrum handoff scheme is illustrated.

II. EXCHANGE OF CONTROL MESSAGE

To exchange the channel sensing information and also keep away from the collision between the SUs, the control message has to be exchanged between SUs. When spectrum handoff is needed in CRN, a new channel is recognized and transmission wishes to continue in the channel [7]. The Exchange of control message categorization based on principles of process is not proper to the CR networks for the following reasons:

Fig. 1. National Frequency Allocation Plan 2011 by Ministry of Communication and IT in India [3]

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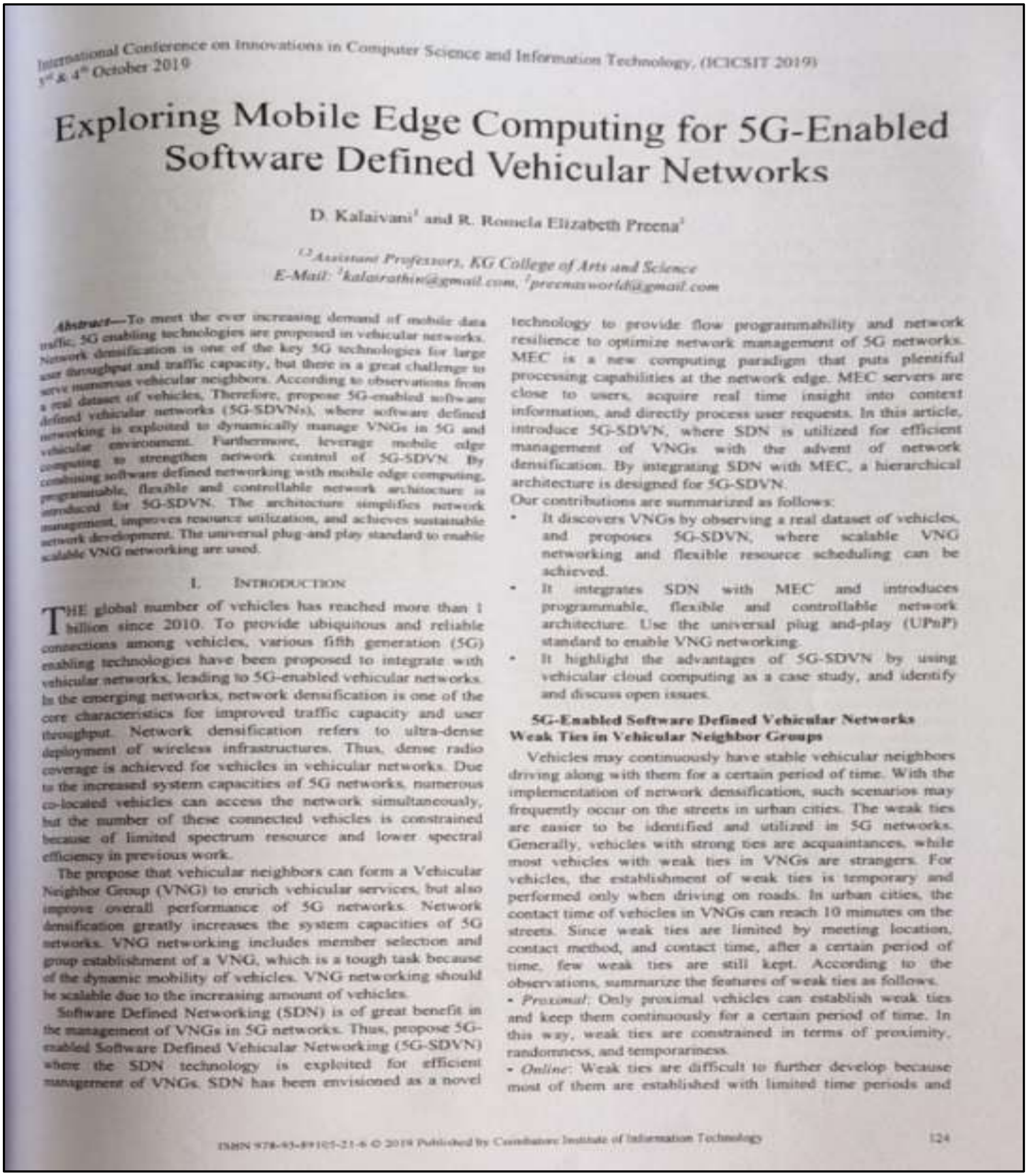

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Exploring Mobile Edge Computing for 5G-Enabled Software Defined Vehicular Networks

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***Abstract*—To meet the ever increasing demand of mobile data traffic, 5G enabling technologies are proposed in vehicular networks. Network densification is one of the key 5G technologies for large user throughput and traffic capacity, but there is a great challenge to serve numerous vehicular neighbors. According to observations from a real dataset of vehicles, Therefore, propose 5G-enabled software defined vehicular networks (5G-SDVNs), where software defined networking is exploited to dynamically manage VNGs in 5G and vehicular environment. Furthermore, leverage mobile edge computing to strengthen network control of 5G-SDVN. By combining software defined networking with mobile edge computing, programmable, flexible and controllable network architecture is introduced for 5G-SDVN. The architecture simplifies network management, improves resource utilization, and achieves sustainable network development. The universal plug-and play standard to enable scalable VNG networking are used.**

I. INTRODUCTION

THE global number of vehicles has reached more than 1 billion since 2010. To provide ubiquitous and reliable connections among vehicles, various fifth generation (5G) enabling technologies have been proposed to integrate with vehicular networks, leading to 5G-enabled vehicular networks. In the emerging networks, network densification is one of the core characteristics for improved traffic capacity and user throughput. Network densification refers to ultra-dense deployment of wireless infrastructures. Thus, dense radio coverage is achieved for vehicles in vehicular networks. Due to the increased system capacities of 5G networks, numerous co-located vehicles can access the network simultaneously, but the number of these connected vehicles is constrained because of limited spectrum resource and lower spectral efficiency in previous work.

The propose that vehicular neighbors can form a Vehicular Neighbor Group (VNG) to enrich vehicular services, but also improve overall performance of 5G networks. Network densification greatly increases the system capacities of 5G networks. VNG networking includes member selection and group establishment of a VNG, which is a tough task because of the dynamic mobility of vehicles. VNG networking should be scalable due to the increasing amount of vehicles.

Software Defined Networking (SDN) is of great benefit in the management of VNGs in 5G networks. Thus, propose 5G-enabled Software Defined Vehicular Networking (5G-SDVN) where the SDN technology is exploited for efficient management of VNGs. SDN has been envisioned as a novel technology to provide flow programmability and network resilience to optimize network management of 5G networks. MEC is a new computing paradigm that puts plentiful processing capabilities at the network edge. MEC servers are close to users, acquire real time insight into context information, and directly process user requests. In this article, introduce 5G-SDVN, where SDN is utilized for efficient management of VNGs with the advent of network densification. By integrating SDN with MEC, a hierarchical architecture is designed for 5G-SDVN.

Our contributions are summarized as follows:

- It discovers VNGs by observing a real dataset of vehicles, and proposes 5G-SDVN, where scalable VNG networking and flexible resource scheduling can be achieved.
- It integrates SDN with MEC and introduces programmable, flexible and controllable network architecture. Use the universal plug and-play (UPnP) standard to enable VNG networking.
- It highlight the advantages of 5G-SDVN by using vehicular cloud computing as a case study, and identify and discuss open issues.

5G-Enabled Software Defined Vehicular Networks

Weak Ties in Vehicular Neighbor Groups

Vehicles may continuously have stable vehicular neighbors driving along with them for a certain period of time. With the implementation of network densification, such scenarios may frequently occur on the streets in urban cities. The weak ties are easier to be identified and utilized in 5G networks. Generally, vehicles with strong ties are acquaintances, while most vehicles with weak ties in VNGs are strangers. For vehicles, the establishment of weak ties is temporary and performed only when driving on roads. In urban cities, the contact time of vehicles in VNGs can reach 10 minutes on the streets. Since weak ties are limited by meeting location, contact method, and contact time, after a certain period of time, few weak ties are still kept. According to the observations, summarize the features of weak ties as follows.

- *Proximal*: Only proximal vehicles can establish weak ties and keep them continuously for a certain period of time. In this way, weak ties are constrained in terms of proximity, randomness, and temporariness.
- *Online*: Weak ties are difficult to further develop because most of them are established with limited time periods and

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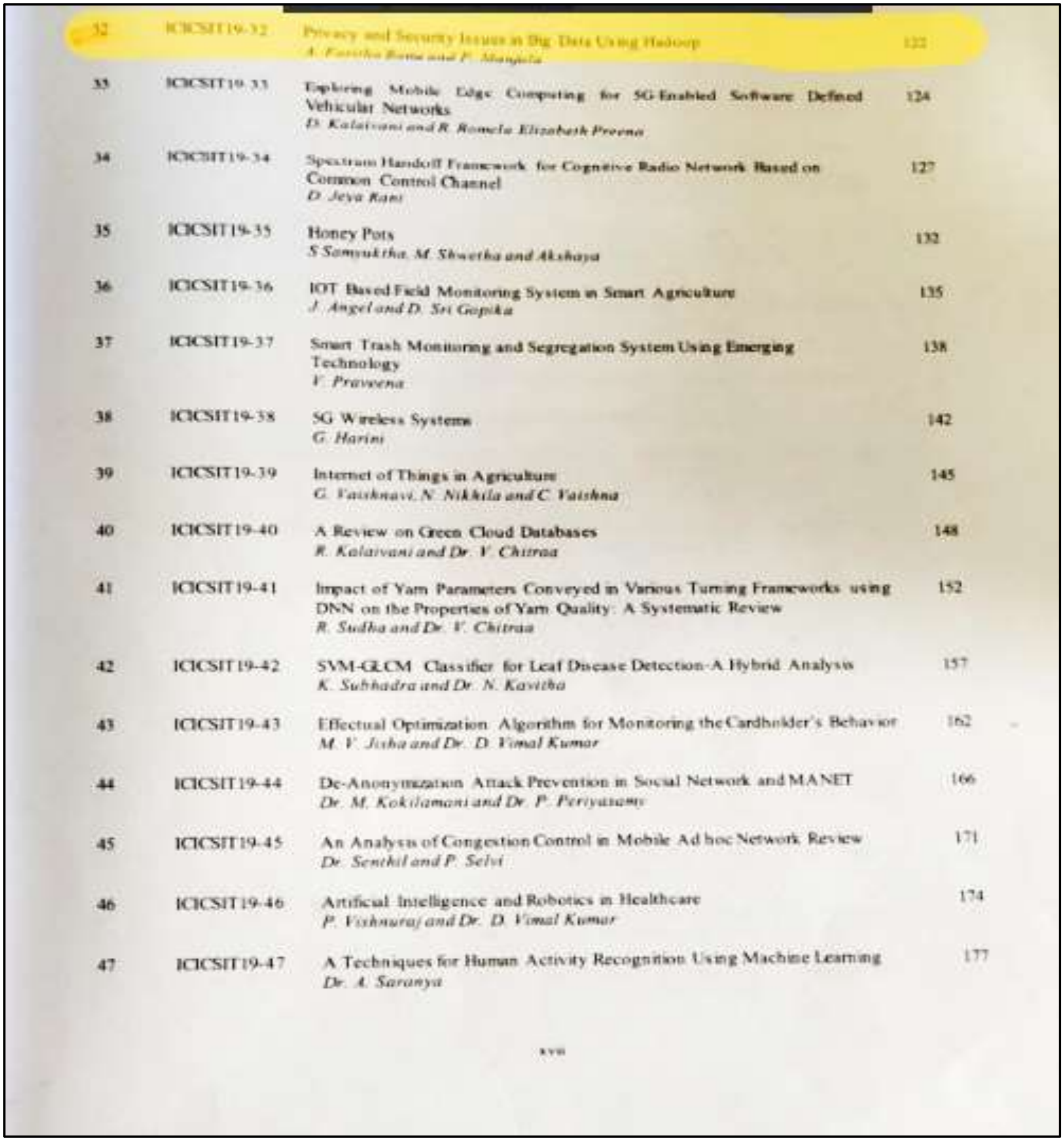

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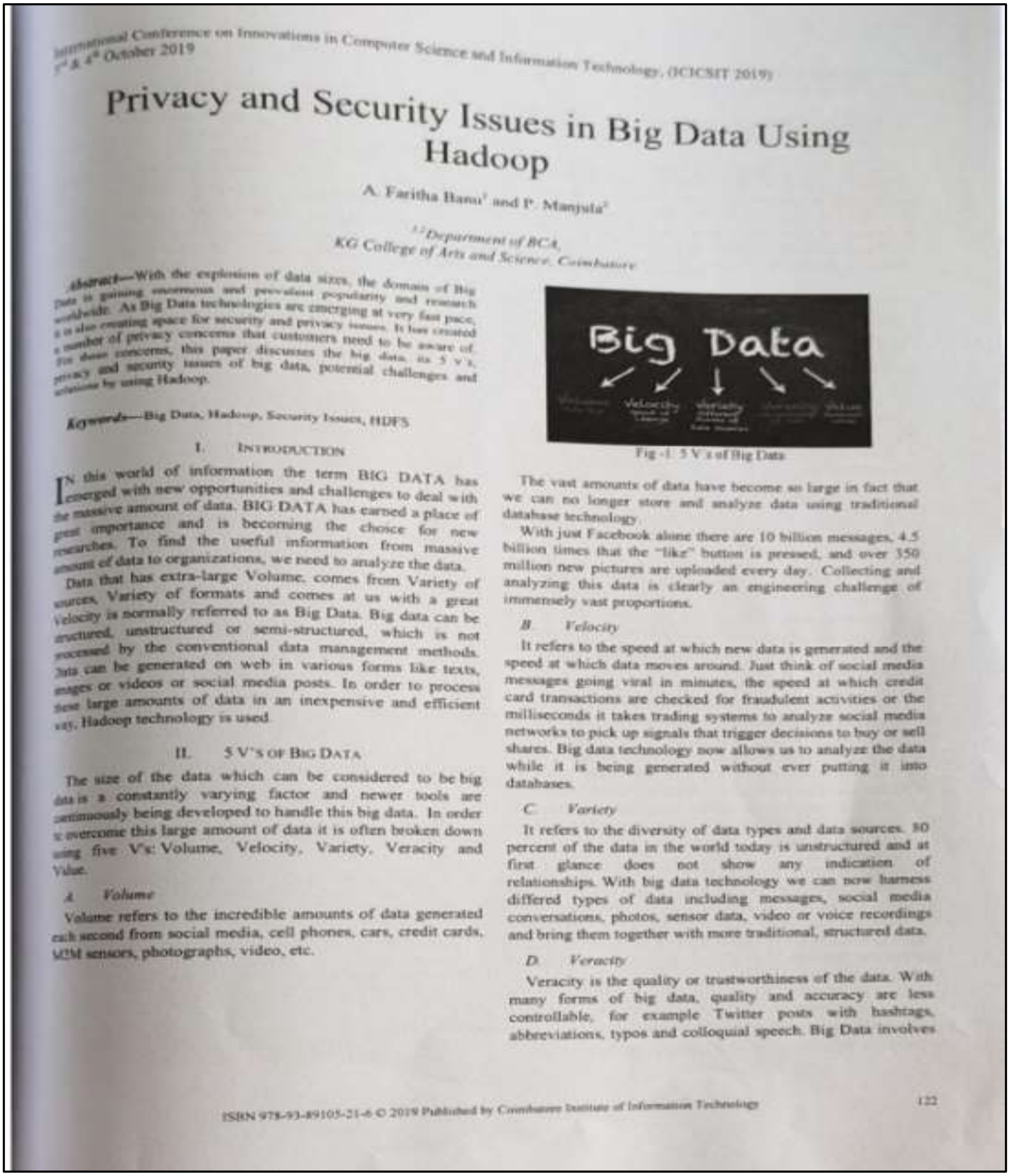

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Privacy and Security Issues in Big Data Using Hadoop

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***Abstract*—With the explosion of data sizes, the domain of Big Data is gaining enormous and prevalent popularity and research worldwide. As Big Data technologies are emerging at very fast pace, it is also creating space for security and privacy issues. It has created a number of privacy concerns that customers need to be aware of. For these concerns, this paper discusses the big data, its 5 V's, privacy and security issues of big data, potential challenges and solutions by using Hadoop.**

***Keywords*—Big Data, Hadoop, Security Issues, HDFS**

I. INTRODUCTION

IN this world of information the term BIG DATA has emerged with new opportunities and challenges to deal with the massive amount of data. BIG DATA has earned a place of great importance and is becoming the choice for new researches. To find the useful information from massive amount of data to organizations, we need to analyze the data.

Data that has extra-large Volume, comes from Variety of sources, Variety of formats and comes at us with a great Velocity is normally referred to as Big Data. Big data can be structured, unstructured or semi-structured, which is not processed by the conventional data management methods. Data can be generated on web in various forms like texts, images or videos or social media posts. In order to process these large amounts of data in an inexpensive and efficient way, Hadoop technology is used.

II. 5 V'S OF BIG DATA

The size of the data which can be considered to be big data is a constantly varying factor and newer tools are continuously being developed to handle this big data. In order to overcome this large amount of data it is often broken down using five V's: Volume, Velocity, Variety, Veracity and Value.

A. Volume

Volume refers to the incredible amounts of data generated each second from social media, cell phones, cars, credit cards, M2M sensors, photographs, video, etc.

Fig -1: 5 V's of Big Data

The vast amounts of data have become so large in fact that we can no longer store and analyze data using traditional database technology.

With just Facebook alone there are 10 billion messages, 4.5 billion times that the "like" button is pressed, and over 350 million new pictures are uploaded every day. Collecting and analyzing this data is clearly an engineering challenge of immensely vast proportions.

B. Velocity

It refers to the speed at which new data is generated and the speed at which data moves around. Just think of social media messages going viral in minutes, the speed at which credit card transactions are checked for fraudulent activities or the milliseconds it takes trading systems to analyze social media networks to pick up signals that trigger decisions to buy or sell shares. Big data technology now allows us to analyze the data while it is being generated without ever putting it into databases.

C. Variety

It refers to the diversity of data types and data sources. 80 percent of the data in the world today is unstructured and at first glance does not show any indication of relationships. With big data technology we can now harness differed types of data including messages, social media conversations, photos, sensor data, video or voice recordings and bring them together with more traditional, structured data.

D. Veracity

Veracity is the quality or trustworthiness of the data. With many forms of big data, quality and accuracy are less controllable, for example Twitter posts with hashtags, abbreviations, typos and colloquial speech. Big Data involves

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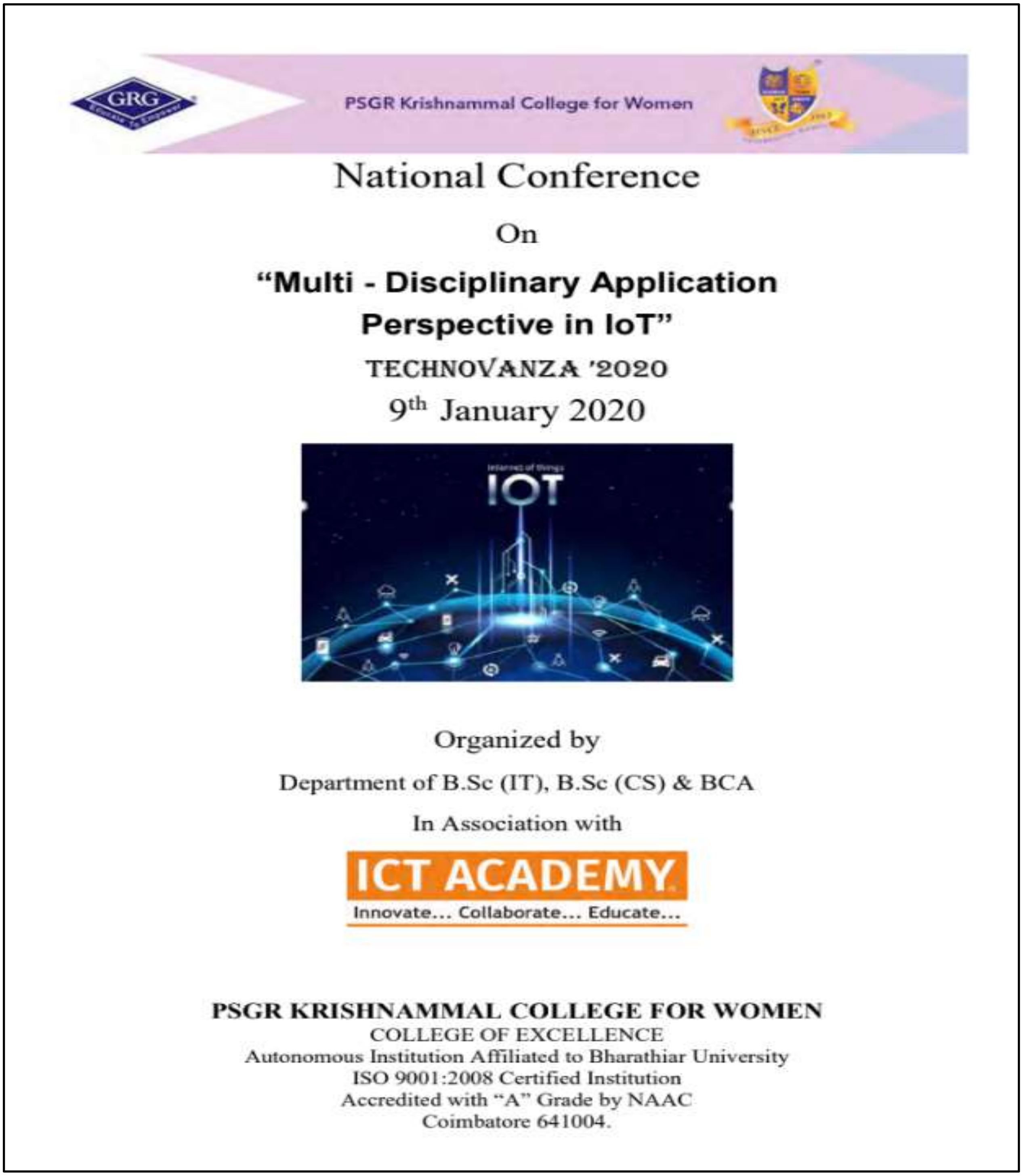

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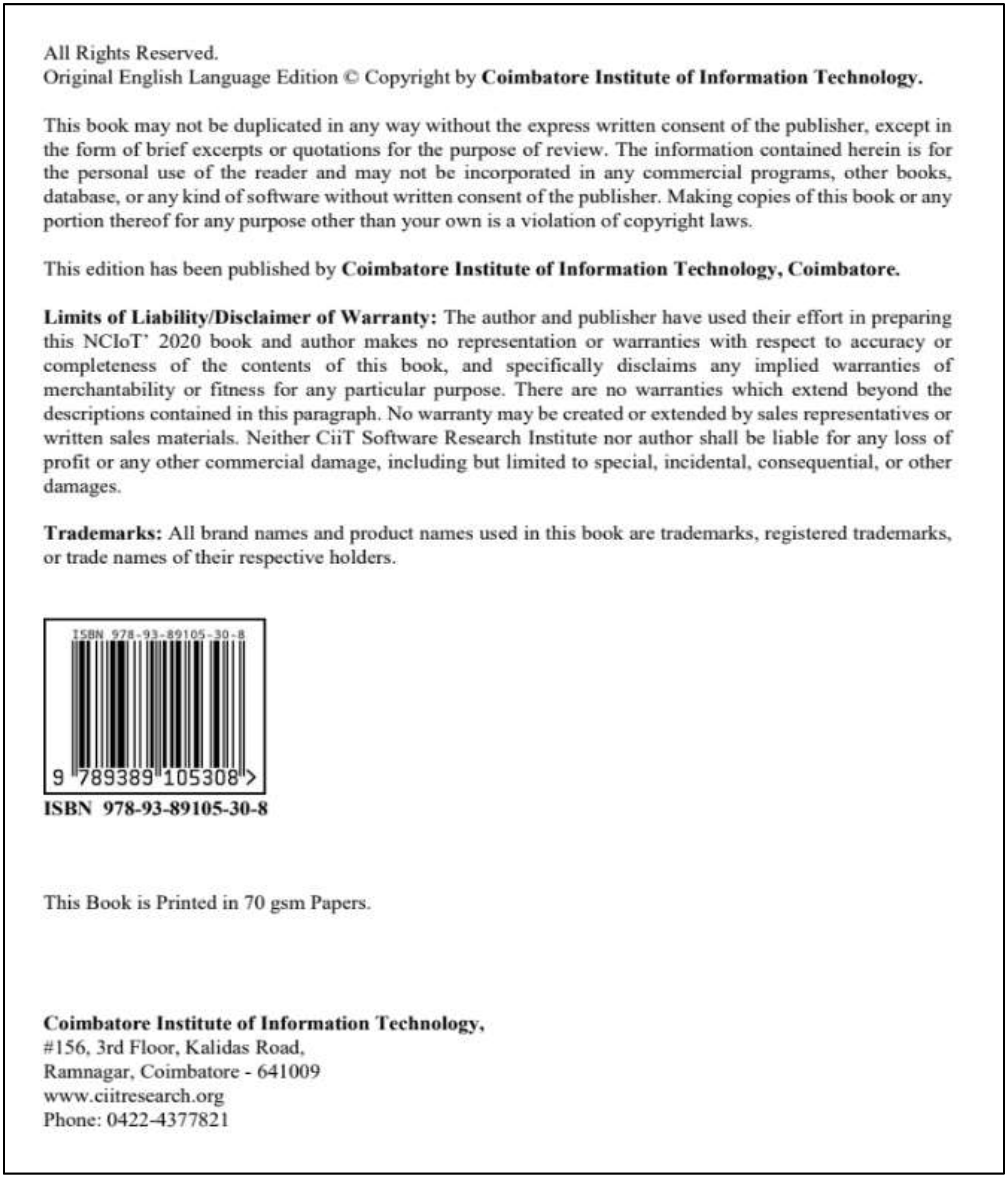

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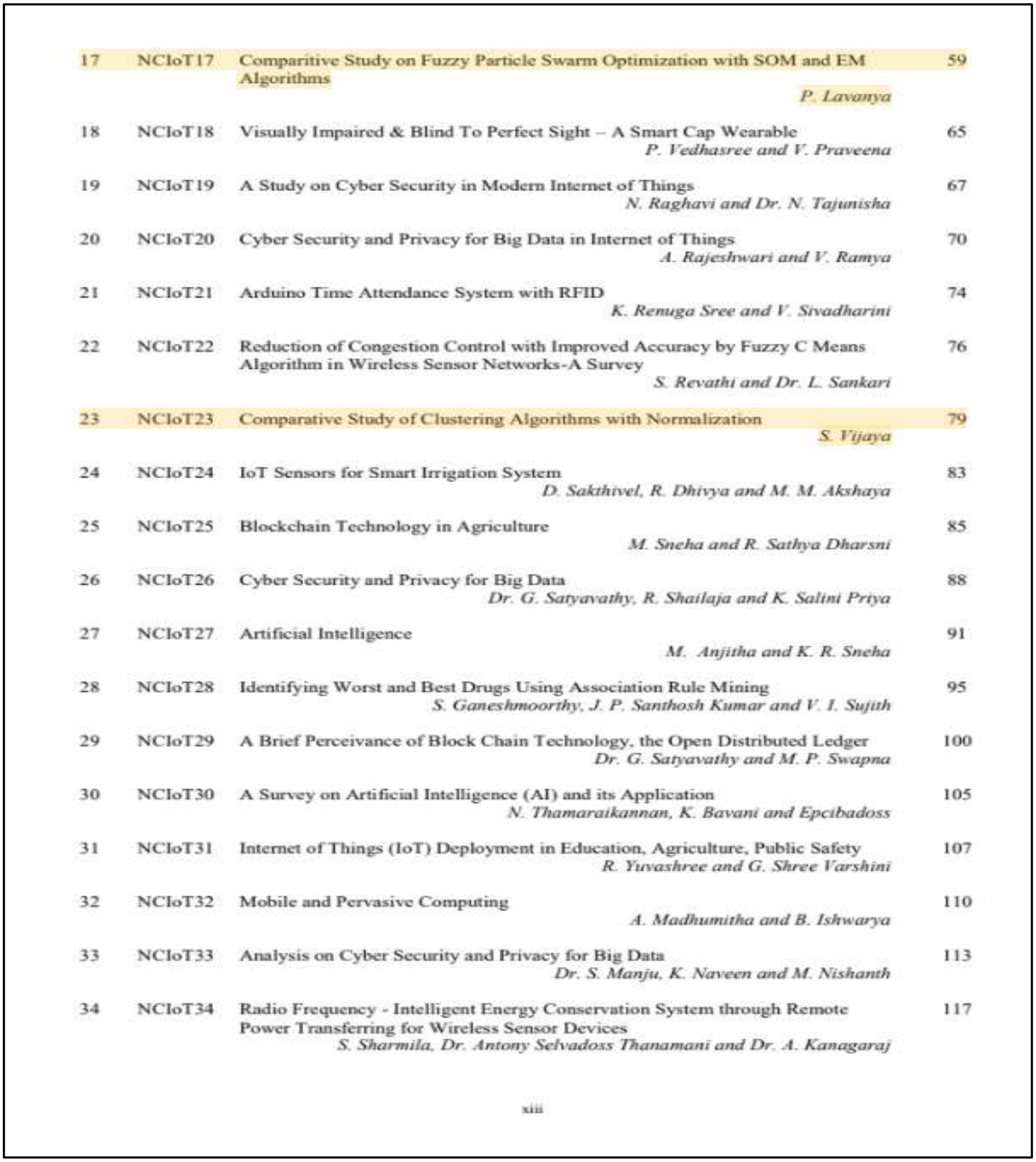

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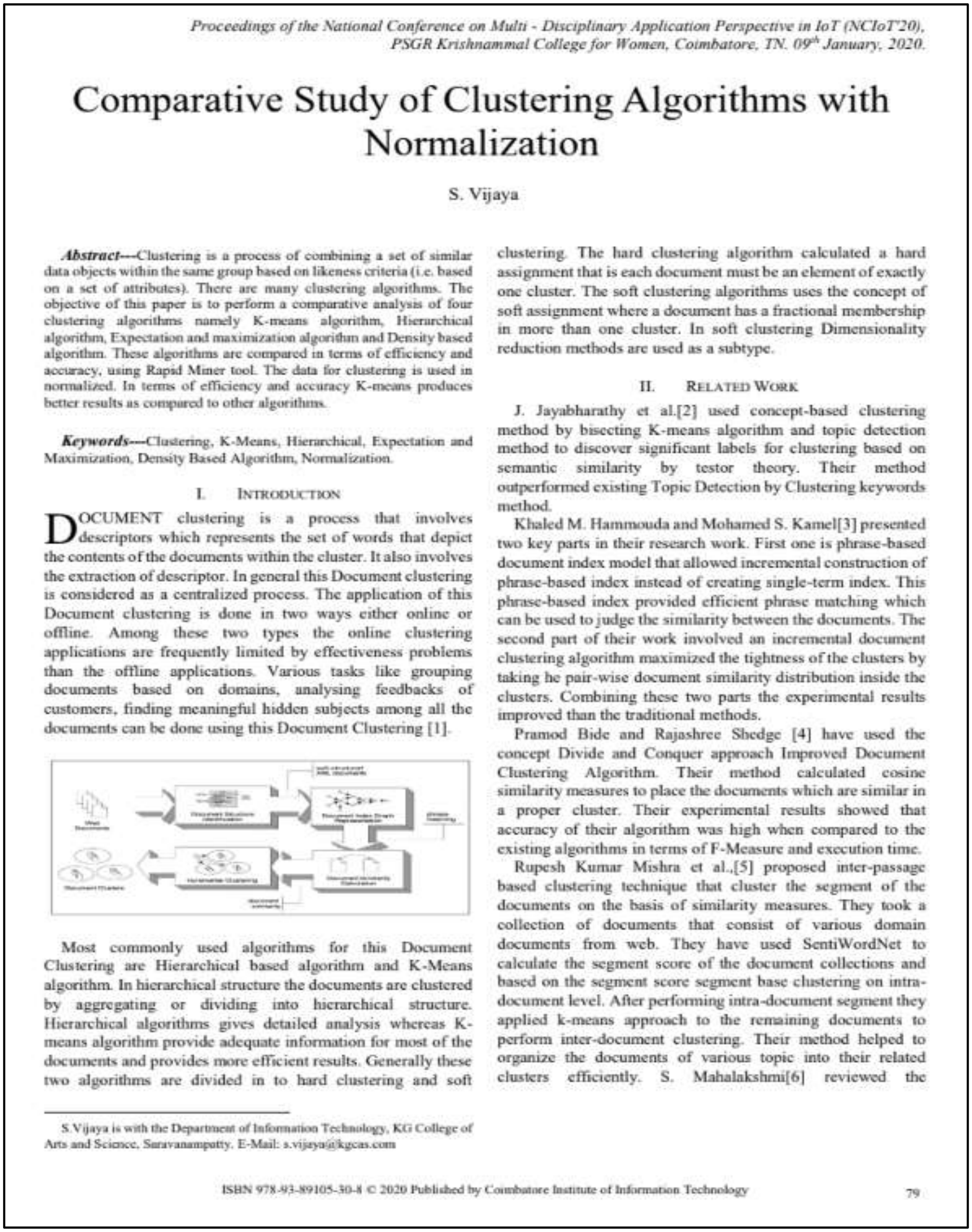

Proceedings of the National Conference on Multi - Disciplinary Application Perspective in IoT (NCIoT'20), PSGR Krishnammal College for Women, Coimbatore, TN. 09th January, 2020.

Comparative Study of Clustering Algorithms with Normalization

S. Vijaya

***Abstract*---**Clustering is a process of combining a set of similar data objects within the same group based on likeness criteria (i.e. based on a set of attributes). There are many clustering algorithms. The objective of this paper is to perform a comparative analysis of four clustering algorithms namely K-means algorithm, Hierarchical algorithm, Expectation and maximization algorithm and Density based algorithm. These algorithms are compared in terms of efficiency and accuracy, using Rapid Miner tool. The data for clustering is used in normalized. In terms of efficiency and accuracy K-means produces better results as compared to other algorithms.

***Keywords*---**Clustering, K-Means, Hierarchical, Expectation and Maximization, Density Based Algorithm, Normalization.

I. INTRODUCTION

DOCUMENT clustering is a process that involves descriptors which represents the set of words that depict the contents of the documents within the cluster. It also involves the extraction of descriptor. In general this Document clustering is considered as a centralized process. The application of this Document clustering is done in two ways either online or offline. Among these two types the online clustering applications are frequently limited by effectiveness problems than the offline applications. Various tasks like grouping documents based on domains, analysing feedbacks of customers, finding meaningful hidden subjects among all the documents can be done using this Document Clustering [1].

Most commonly used algorithms for this Document Clustering are Hierarchical based algorithm and K-Means algorithm. In hierarchical structure the documents are clustered by aggregating or dividing into hierarchical structure. Hierarchical algorithms gives detailed analysis whereas K-means algorithm provide adequate information for most of the documents and provides more efficient results. Generally these two algorithms are divided in to hard clustering and soft clustering. The hard clustering algorithm calculated a hard assignment that is each document must be an element of exactly one cluster. The soft clustering algorithms uses the concept of soft assignment where a document has a fractional membership in more than one cluster. In soft clustering Dimensionality reduction methods are used as a subtype.

II. RELATED WORK

J. Jayabharathy et al.[2] used concept-based clustering method by bisecting K-means algorithm and topic detection method to discover significant labels for clustering based on semantic similarity by testor theory. Their method outperformed existing Topic Detection by Clustering keywords method.

Khaled M. Hammouda and Mohamed S. Kamel[3] presented two key parts in their research work. First one is phrase-based document index model that allowed incremental construction of phrase-based index instead of creating single-term index. This phrase-based index provided efficient phrase matching which can be used to judge the similarity between the documents. The second part of their work involved an incremental document clustering algorithm maximized the tightness of the clusters by taking he pair-wise document similarity distribution inside the clusters. Combining these two parts the experimental results improved than the traditional methods.

Pramod Bide and Rajashree Shedge [4] have used the concept Divide and Conquer approach Improved Document Clustering Algorithm. Their method calculated cosine similarity measures to place the documents which are similar in a proper cluster. Their experimental results showed that accuracy of their algorithm was high when compared to the existing algorithms in terms of F-Measure and execution time.

Rupesh Kumar Mishra et al.,[5] proposed inter-passage based clustering technique that cluster the segment of the documents on the basis of similarity measures. They took a collection of documents that consist of various domain documents from web. They have used SentiWordNet to calculate the segment score of the document collections and based on the segment score segment base clustering on intra-document level. After performing intra-document segment they applied k-means approach to the remaining documents to perform inter-document clustering. Their method helped to organize the documents of various topic into their related clusters efficiently. S. Mahalakshmi[6] reviewed the

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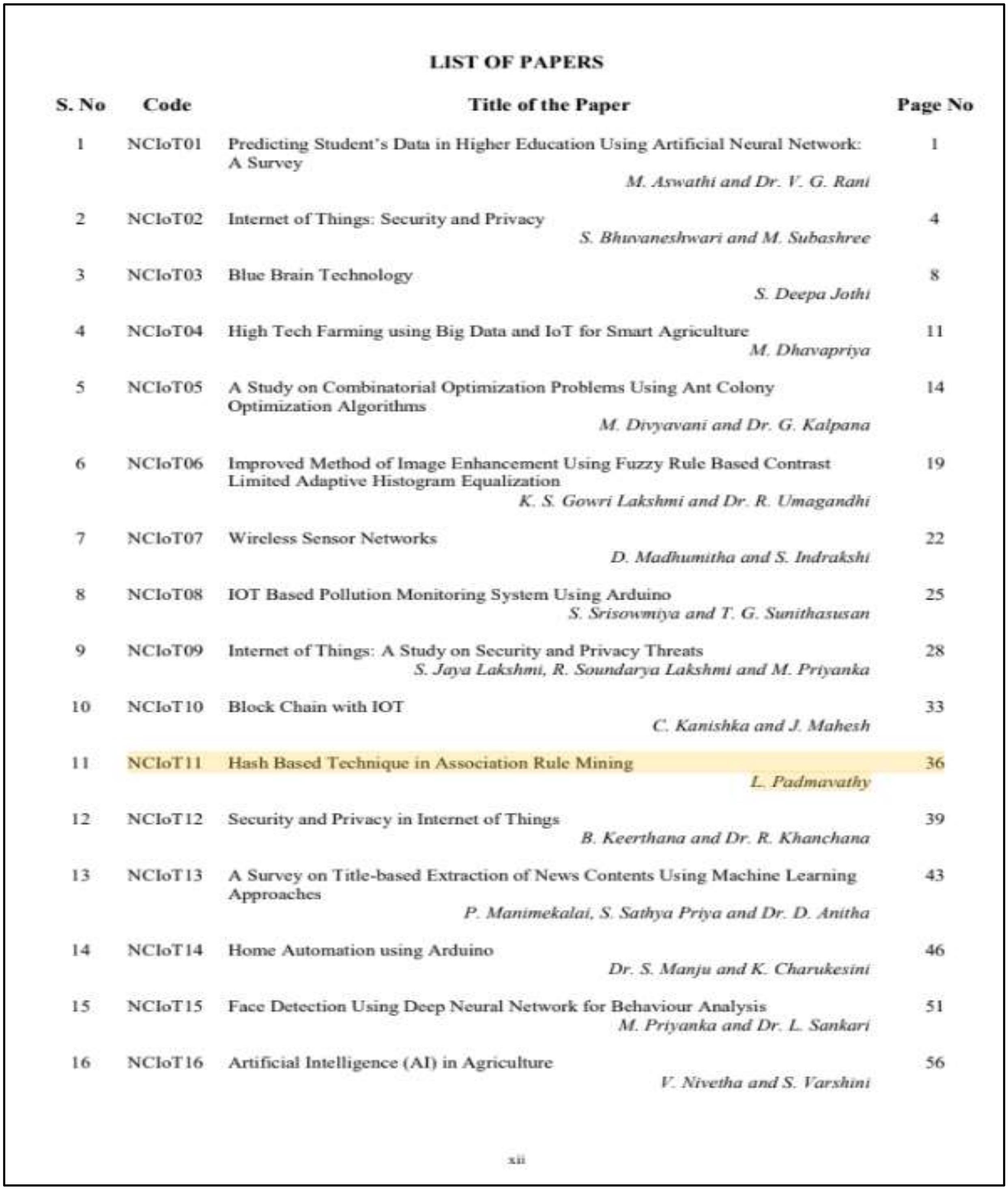

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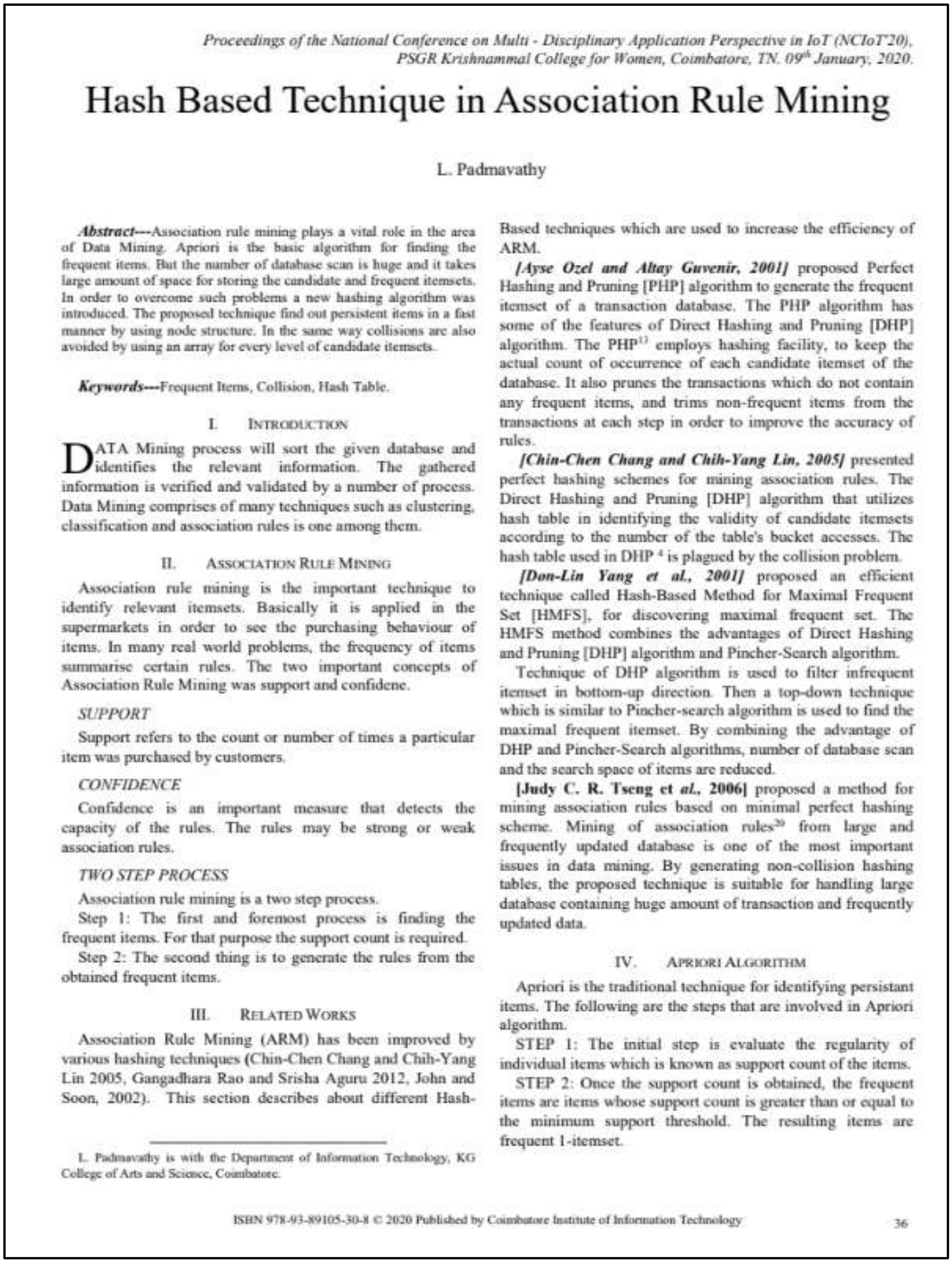

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Hash Based Technique in Association Rule Mining

L. Padmavathy

***Abstract*---**Association rule mining plays a vital role in the area of Data Mining. Apriori is the basic algorithm for finding the frequent items. But the number of database scan is huge and it takes large amount of space for storing the candidate and frequent itemsets. In order to overcome such problems a new hashing algorithm was introduced. The proposed technique find out persistent items in a fast manner by using node structure. In the same way collisions are also avoided by using an array for every level of candidate itemsets.

***Keywords*---**Frequent Items, Collision, Hash Table.

I. INTRODUCTION

DATA Mining process will sort the given database and identifies the relevant information. The gathered information is verified and validated by a number of process. Data Mining comprises of many techniques such as clustering, classification and association rules is one among them.

II. ASSOCIATION RULE MINING

Association rule mining is the important technique to identify relevant itemsets. Basically it is applied in the supermarkets in order to see the purchasing behaviour of items. In many real world problems, the frequency of items summarise certain rules. The two important concepts of Association Rule Mining was support and confidence.

SUPPORT

Support refers to the count or number of times a particular item was purchased by customers.

CONFIDENCE

Confidence is an important measure that detects the capacity of the rules. The rules may be strong or weak association rules.

TWO STEP PROCESS

Association rule mining is a two step process.

Step 1: The first and foremost process is finding the frequent items. For that purpose the support count is required.

Step 2: The second thing is to generate the rules from the obtained frequent items.

III. RELATED WORKS

Association Rule Mining (ARM) has been improved by various hashing techniques (Chin-Chen Chang and Chih-Yang Lin 2005, Gangadhara Rao and Srisha Aguru 2012, John and Soon, 2002). This section describes about different Hash-Based techniques which are used to increase the efficiency of ARM.

[Ayse Ozel and Altay Guvenir, 2001] proposed Perfect Hashing and Pruning [PHP] algorithm to generate the frequent itemset of a transaction database. The PHP algorithm has some of the features of Direct Hashing and Pruning [DHP] algorithm. The PHP[13] employs hashing facility, to keep the actual count of occurrence of each candidate itemset of the database. It also prunes the transactions which do not contain any frequent items, and trims non-frequent items from the transactions at each step in order to improve the accuracy of rules.

[Chin-Chen Chang and Chih-Yang Lin, 2005] presented perfect hashing schemes for mining association rules. The Direct Hashing and Pruning [DHP] algorithm that utilizes hash table in identifying the validity of candidate itemsets according to the number of the table's bucket accesses. The hash table used in DHP [4] is plagued by the collision problem.

[Don-Lin Yang et al., 2001] proposed an efficient technique called Hash-Based Method for Maximal Frequent Set [HMFS], for discovering maximal frequent set. The HMFS method combines the advantages of Direct Hashing and Pruning [DHP] algorithm and Pincher-Search algorithm.

Technique of DHP algorithm is used to filter infrequent itemset in bottom-up direction. Then a top-down technique which is similar to Pincher-search algorithm is used to find the maximal frequent itemset. By combining the advantage of DHP and Pincher-Search algorithms, number of database scan and the search space of items are reduced.

[Judy C. R. Tseng et *al.*, 2006] proposed a method for mining association rules based on minimal perfect hashing scheme. Mining of association rules[20] from large and frequently updated database is one of the most important issues in data mining. By generating non-collision hashing tables, the proposed technique is suitable for handling large database containing huge amount of transaction and frequently updated data.

IV. APRIORI ALGORITHM

Apriori is the traditional technique for identifying persistant items. The following are the steps that are involved in Apriori algorithm.

STEP 1: The initial step is evaluate the regularity of individual items which is known as support count of the items.

STEP 2: Once the support count is obtained, the frequent items are items whose support count is greater than or equal to the minimum support threshold. The resulting items are frequent 1-itemset.

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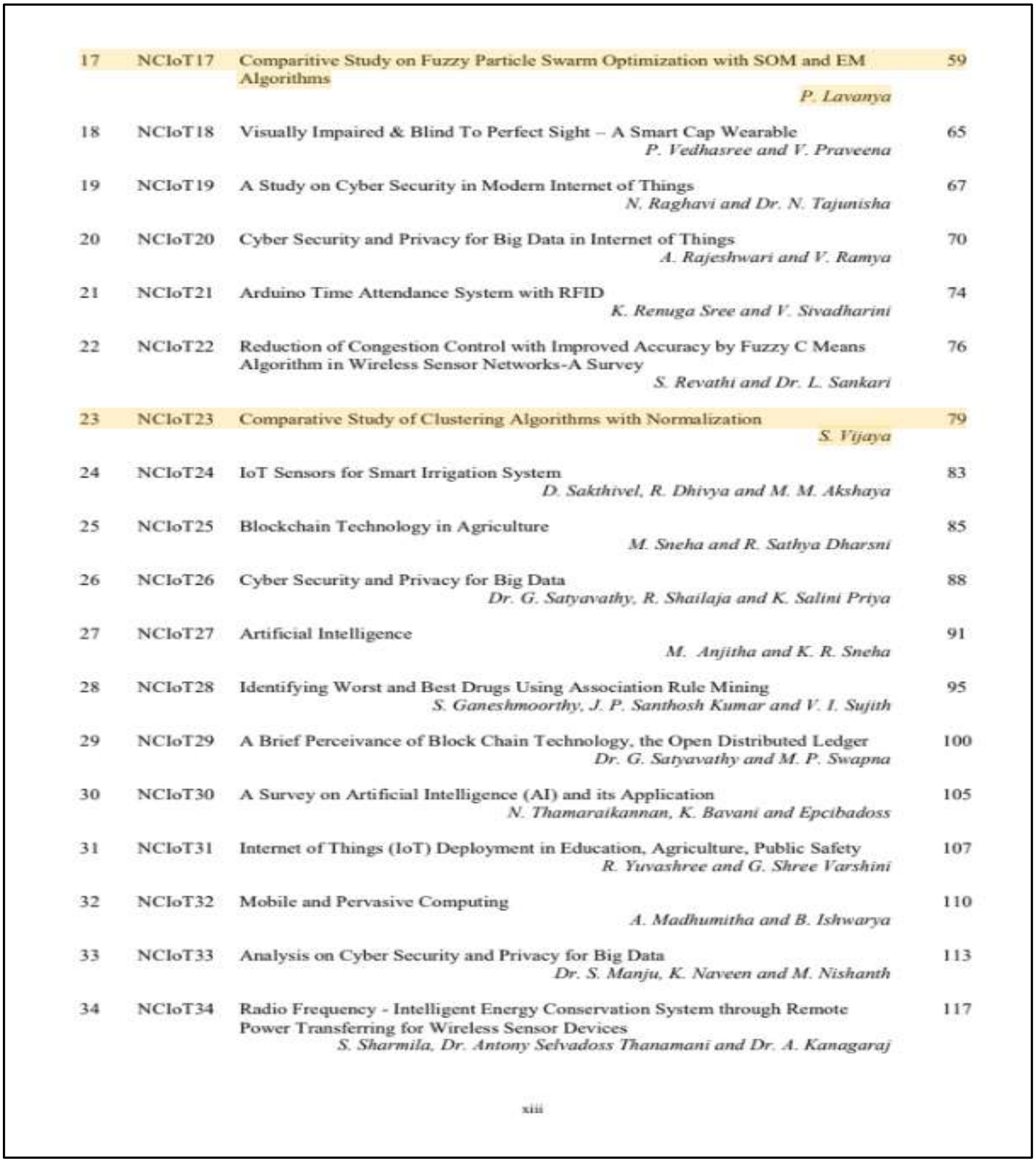

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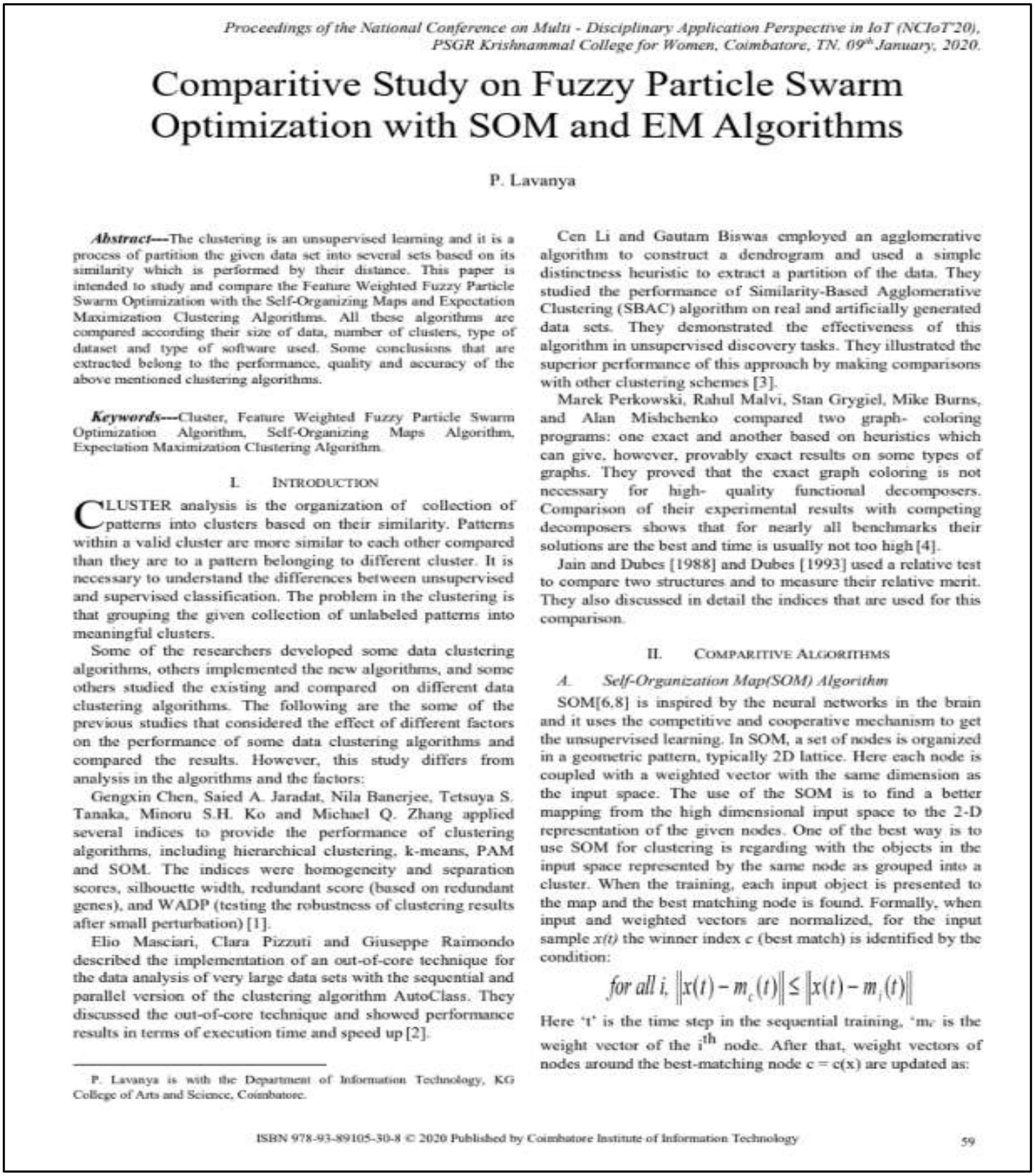

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Comparitive Study on Fuzzy Particle Swarm Optimization with SOM and EM Algorithms

P. Lavanya

***Abstract*—**The clustering is an unsupervised learning and it is a process of partition the given data set into several sets based on its similarity which is performed by their distance. This paper is intended to study and compare the Feature Weighted Fuzzy Particle Swarm Optimization with the Self-Organizing Maps and Expectation Maximization Clustering Algorithms. All these algorithms are compared according their size of data, number of clusters, type of dataset and type of software used. Some conclusions that are extracted belong to the performance, quality and accuracy of the above mentioned clustering algorithms.

***Keywords*—**Cluster, Feature Weighted Fuzzy Particle Swarm Optimization Algorithm, Self-Organizing Maps Algorithm, Expectation Maximization Clustering Algorithm.

I. INTRODUCTION

CLUSTER analysis is the organization of collection of patterns into clusters based on their similarity. Patterns within a valid cluster are more similar to each other compared than they are to a pattern belonging to different cluster. It is necessary to understand the differences between unsupervised and supervised classification. The problem in the clustering is that grouping the given collection of unlabeled patterns into meaningful clusters.

Some of the researchers developed some data clustering algorithms, others implemented the new algorithms, and some others studied the existing and compared on different data clustering algorithms. The following are the some of the previous studies that considered the effect of different factors on the performance of some data clustering algorithms and compared the results. However, this study differs from analysis in the algorithms and the factors:

Gengxin Chen, Saied A. Jaradat, Nila Banerjee, Tetsuya S. Tanaka, Minoru S.H. Ko and Michael Q. Zhang applied several indices to provide the performance of clustering algorithms, including hierarchical clustering, k-means, PAM and SOM. The indices were homogeneity and separation scores, silhouette width, redundant score (based on redundant genes), and WADP (testing the robustness of clustering results after small perturbation) [1].

Elio Masciari, Clara Pizzuti and Giuseppe Raimondo described the implementation of an out-of-core technique for the data analysis of very large data sets with the sequential and parallel version of the clustering algorithm AutoClass. They discussed the out-of-core technique and showed performance results in terms of execution time and speed up [2].

Cen Li and Gautam Biswas employed an agglomerative algorithm to construct a dendrogram and used a simple distinctness heuristic to extract a partition of the data. They studied the performance of Similarity-Based Agglomerative Clustering (SBAC) algorithm on real and artificially generated data sets. They demonstrated the effectiveness of this algorithm in unsupervised discovery tasks. They illustrated the superior performance of this approach by making comparisons with other clustering schemes [3].

Marek Perkowski, Rahul Malvi, Stan Grygiel, Mike Burns, and Alan Mishchenko compared two graph- coloring programs: one exact and another based on heuristics which can give, however, provably exact results on some types of graphs. They proved that the exact graph coloring is not necessary for high- quality functional decomposers. Comparison of their experimental results with competing decomposers shows that for nearly all benchmarks their solutions are the best and time is usually not too high [4].

Jain and Dubes [1988] and Dubes [1993] used a relative test to compare two structures and to measure their relative merit. They also discussed in detail the indices that are used for this comparison.

II. COMPARITIVE ALGORITHMS

A. Self-Organization Map(SOM) Algorithm

SOM[6,8] is inspired by the neural networks in the brain and it uses the competitive and cooperative mechanism to get the unsupervised learning. In SOM, a set of nodes is organized in a geometric pattern, typically 2D lattice. Here each node is coupled with a weighted vector with the same dimension as the input space. The use of the SOM is to find a better mapping from the high dimensional input space to the 2-D representation of the given nodes. One of the best way is to use SOM for clustering is regarding with the objects in the input space represented by the same node as grouped into a cluster. When the training, each input object is presented to the map and the best matching node is found. Formally, when input and weighted vectors are normalized, for the input sample *x(t)* the winner index *c* (best match) is identified by the condition:

$$\text{for all } i,\ \left\|x(t)-m_c(t)\right\| \le \left\|x(t)-m_i(t)\right\|$$

Here 't' is the time step in the sequential training, 'm$_c$' is the weight vector of the ith node. After that, weight vectors of nodes around the best-matching node c = c(x) are updated as:

P. Lavanya is with the Department of Information Technology, KG College of Arts and Science, Coimbatore.

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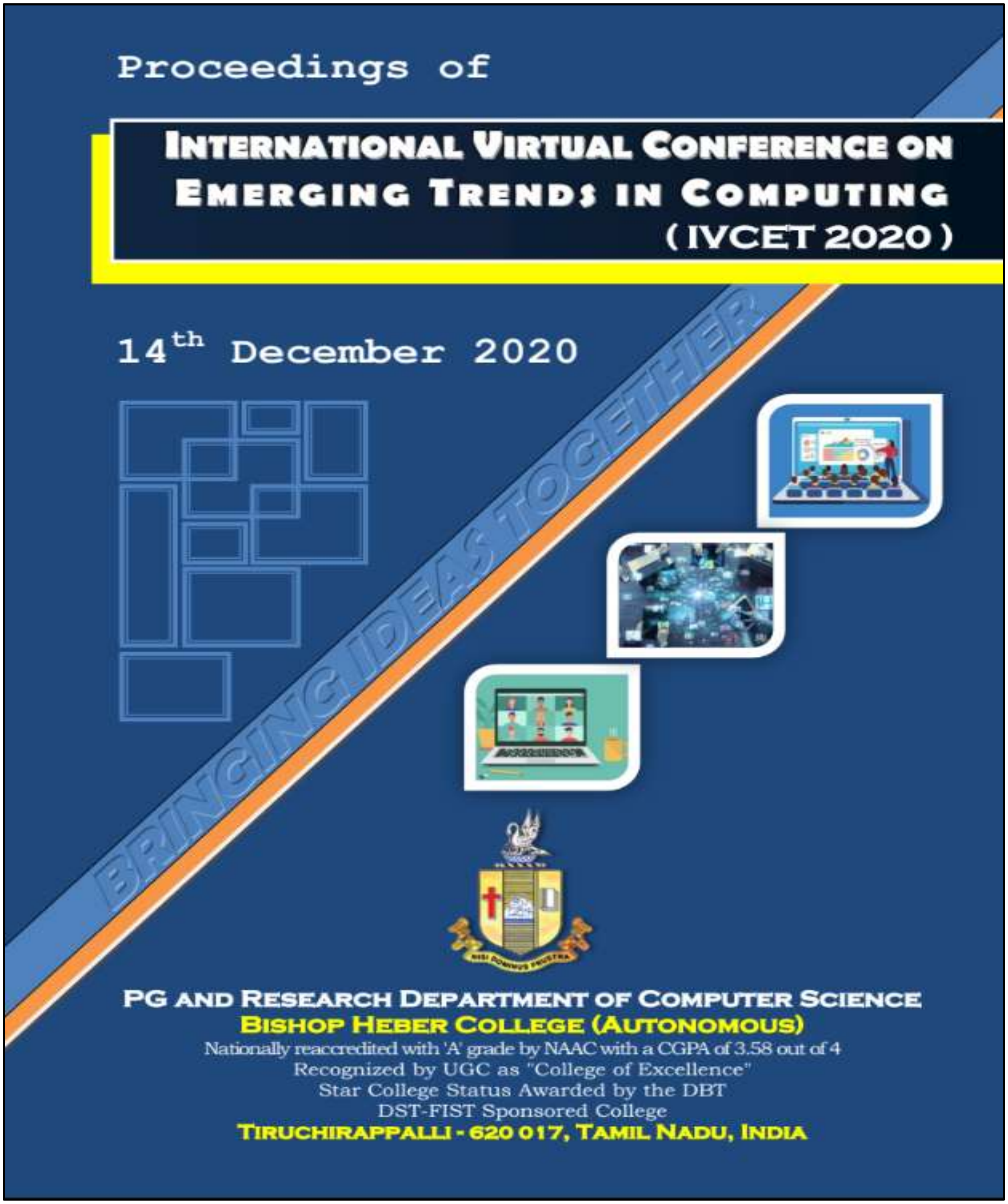

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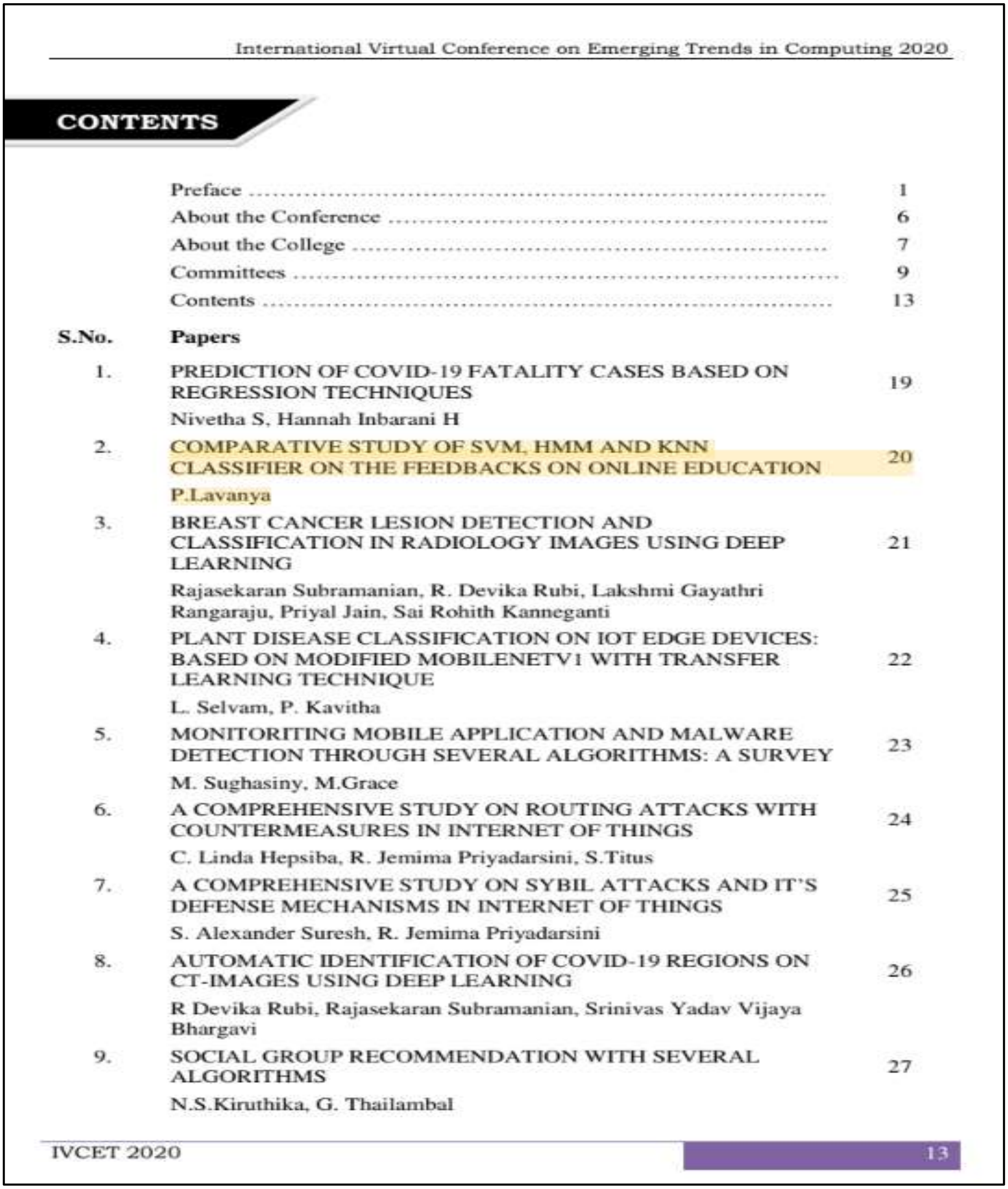

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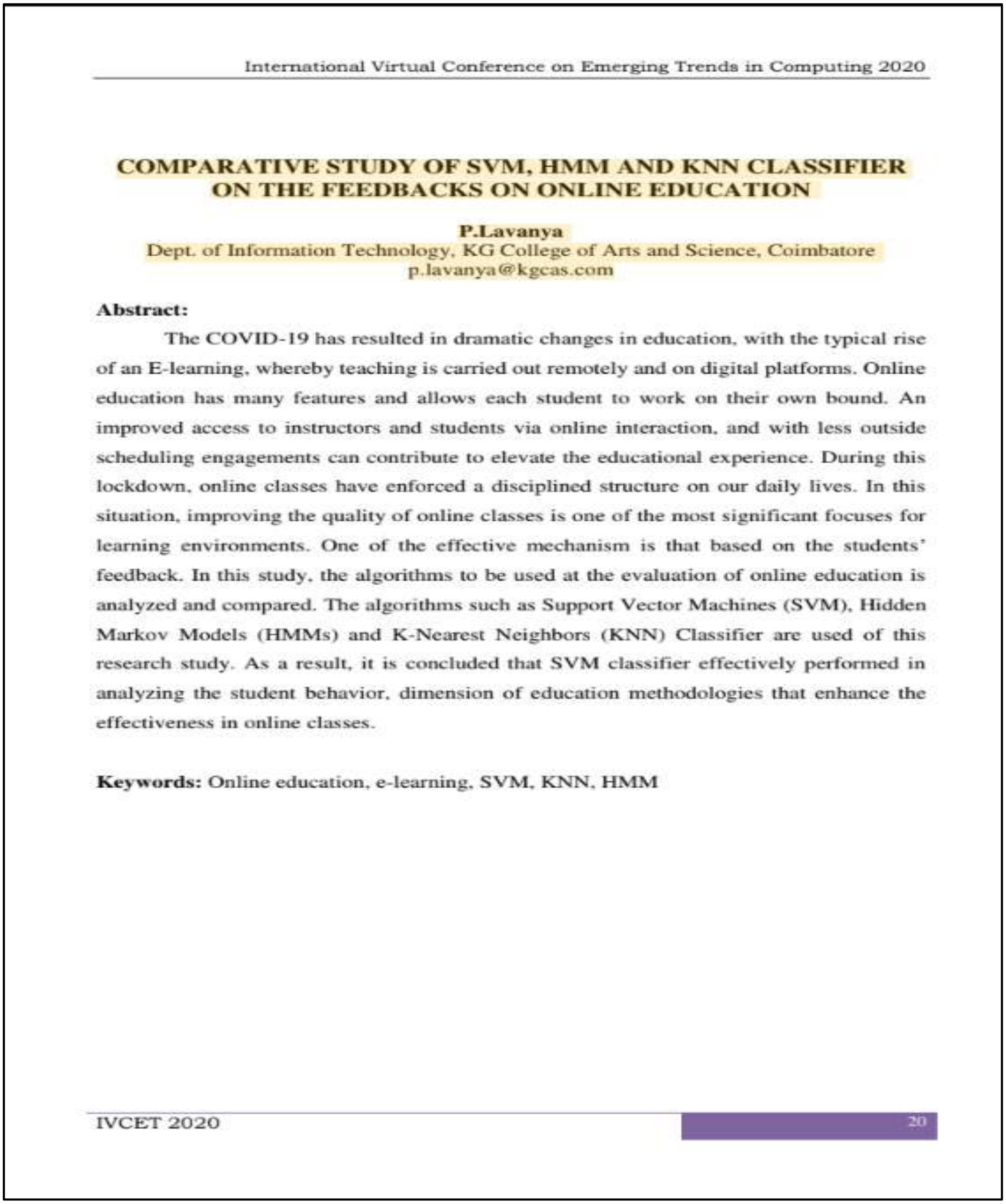

COMPARATIVE STUDY OF SVM, HMM AND KNN CLASSIFIER ON THE FEEDBACKS ON ONLINE EDUCATION

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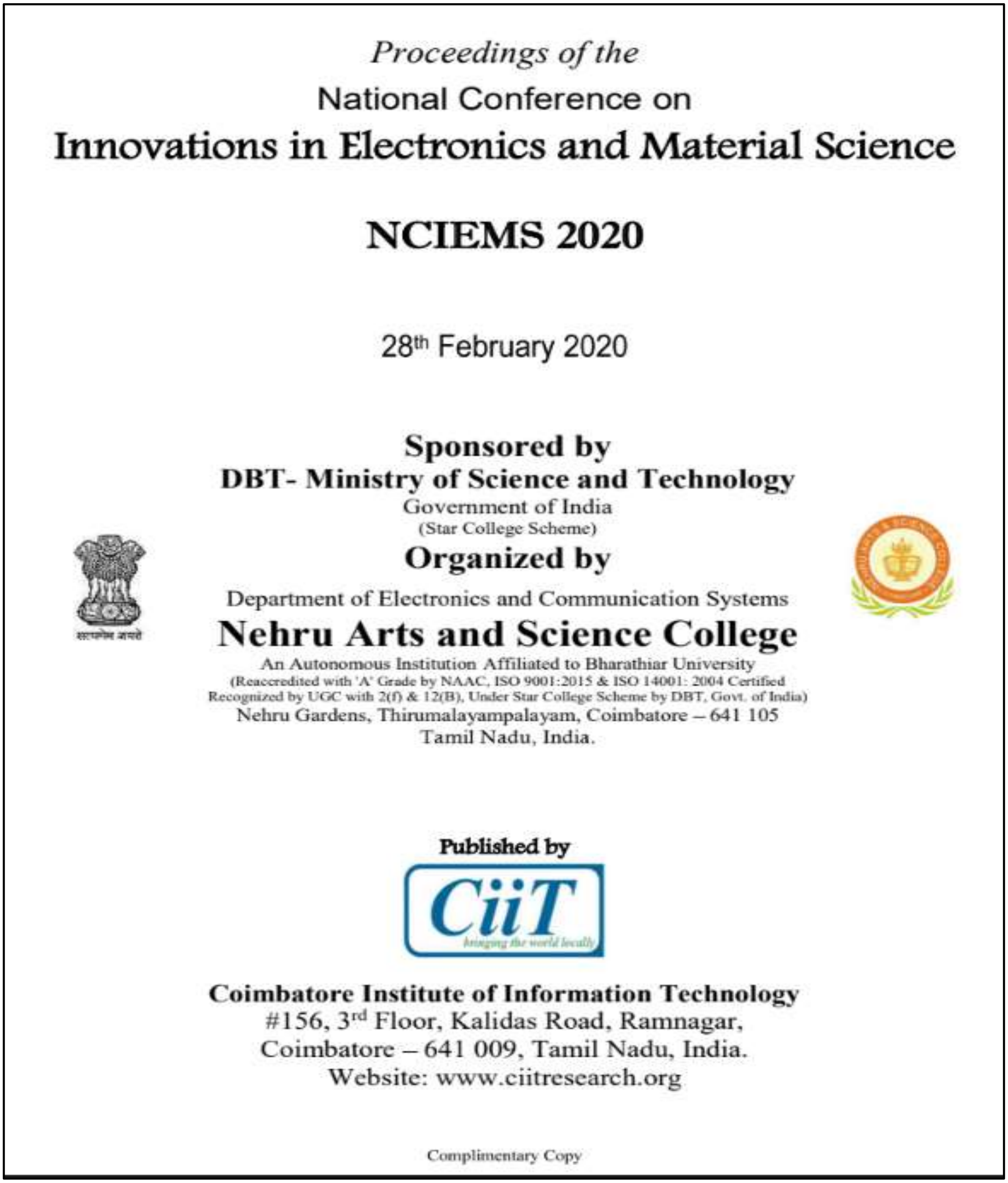
Abstract:

The COVID-19 has resulted in dramatic changes in education, with the typical rise of an E-learning, whereby teaching is carried out remotely and on digital platforms. Online education has many features and allows each student to work on their own bound. An improved access to instructors and students via online interaction, and with less outside scheduling engagements can contribute to elevate the educational experience. During this lockdown, online classes have enforced a disciplined structure on our daily lives. In this situation, improving the quality of online classes is one of the most significant focuses for learning environments. One of the effective mechanism is that based on the students' feedback. In this study, the algorithms to be used at the evaluation of online education is analyzed and compared. The algorithms such as Support Vector Machines (SVM), Hidden Markov Models (HMMs) and K-Nearest Neighbors (KNN) Classifier are used of this research study. As a result, it is concluded that SVM classifier effectively performed in analyzing the student behavior, dimension of education methodologies that enhance the effectiveness in online classes.

Keywords: Online education, e-learning, SVM, KNN, HMM



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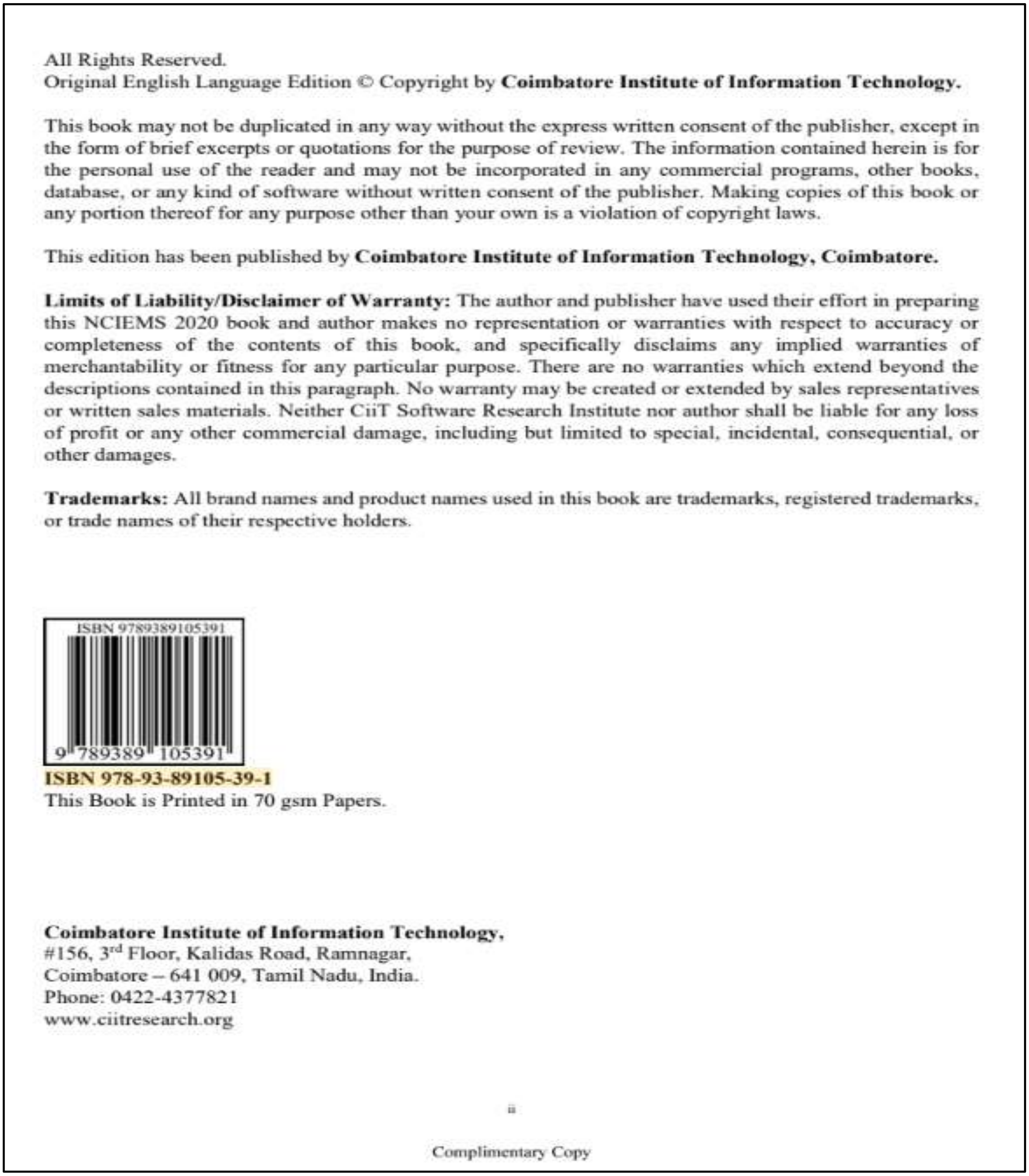

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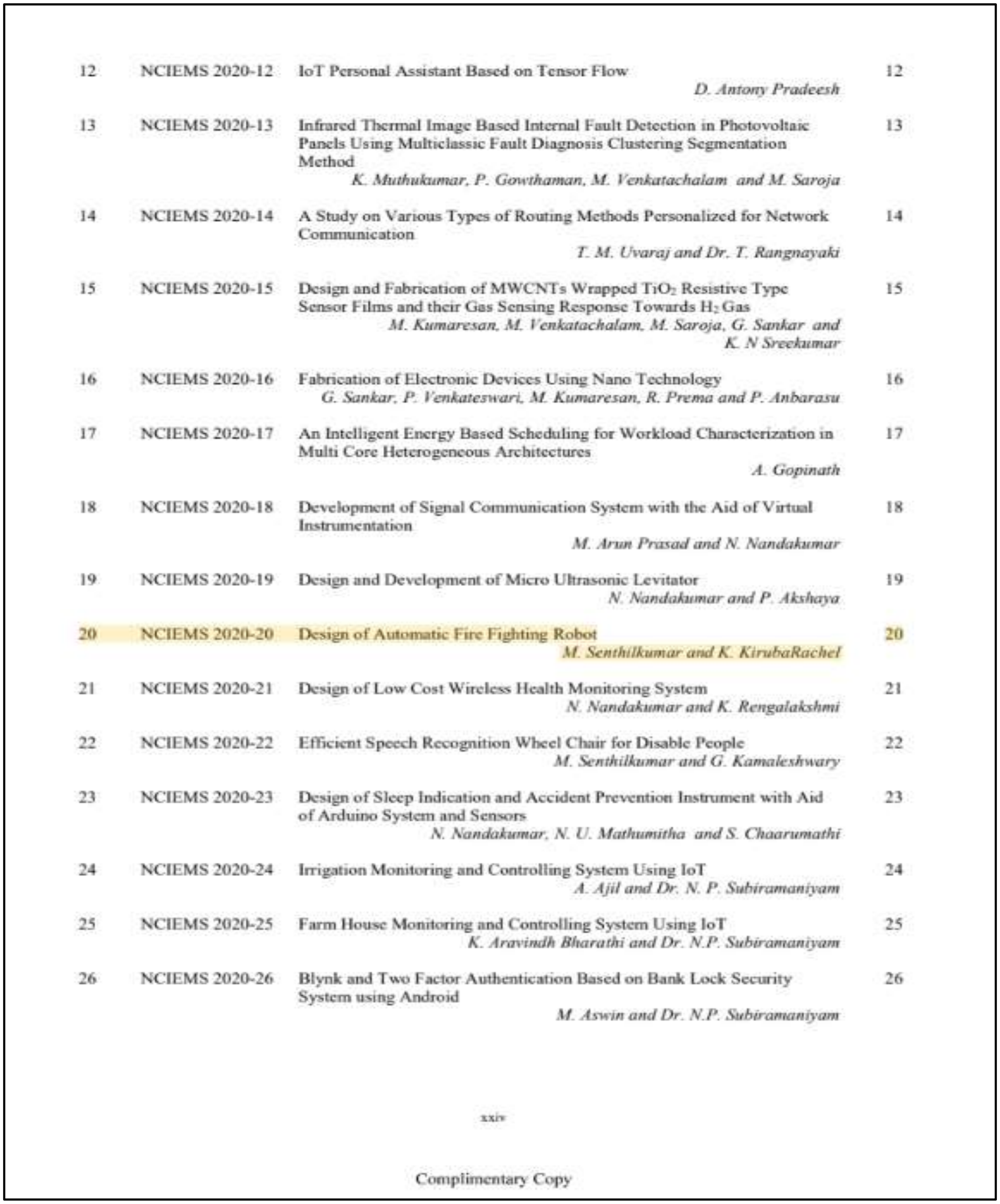

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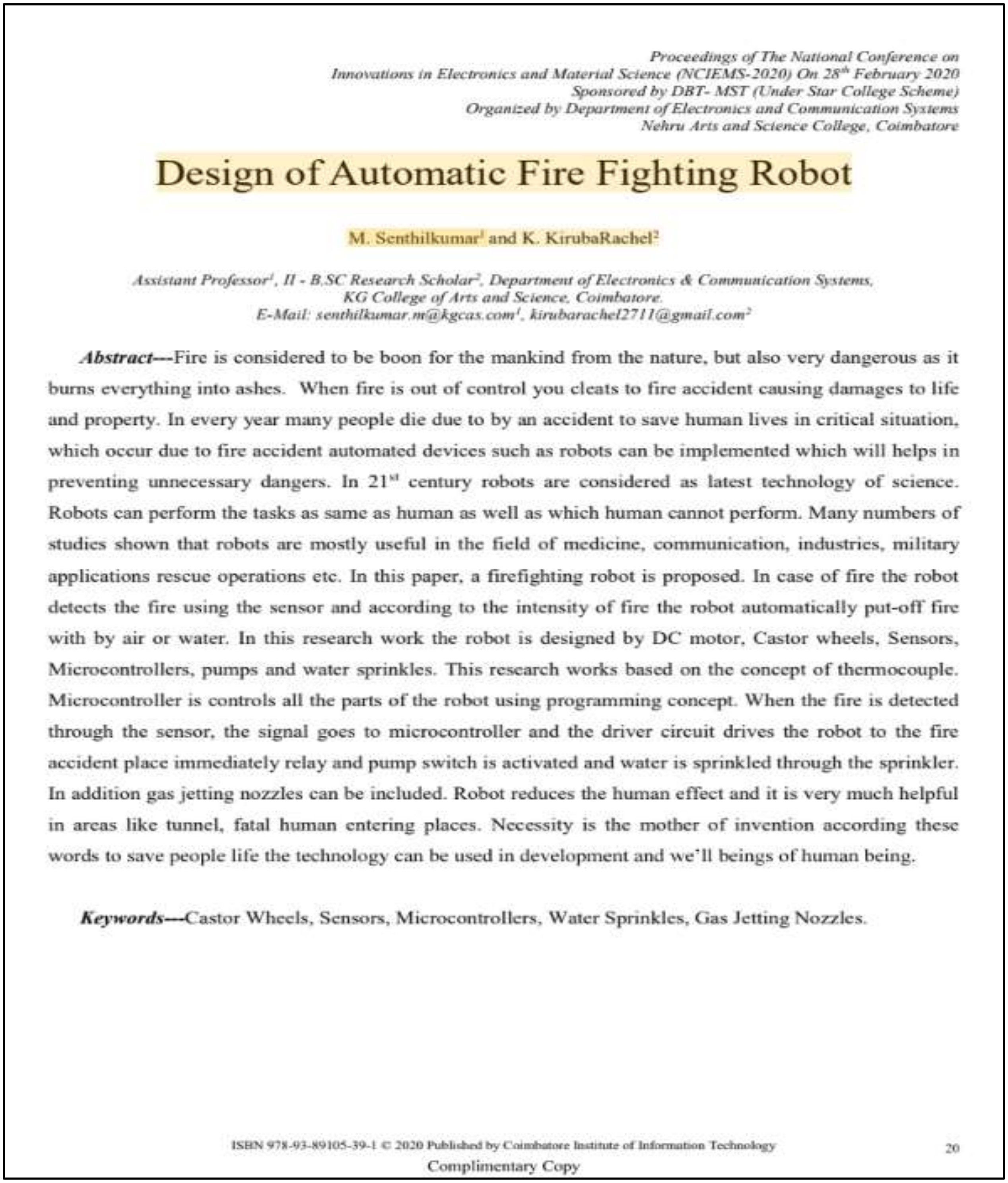

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Design of Automatic Fire Fighting Robot

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***Abstract*---**Fire is considered to be boon for the mankind from the nature, but also very dangerous as it burns everything into ashes. When fire is out of control you cleats to fire accident causing damages to life and property. In every year many people die due to by an accident to save human lives in critical situation, which occur due to fire accident automated devices such as robots can be implemented which will helps in preventing unnecessary dangers. In 21st century robots are considered as latest technology of science. Robots can perform the tasks as same as human as well as which human cannot perform. Many numbers of studies shown that robots are mostly useful in the field of medicine, communication, industries, military applications rescue operations etc. In this paper, a firefighting robot is proposed. In case of fire the robot detects the fire using the sensor and according to the intensity of fire the robot automatically put-off fire with by air or water. In this research work the robot is designed by DC motor, Castor wheels, Sensors, Microcontrollers, pumps and water sprinkles. This research works based on the concept of thermocouple. Microcontroller is controls all the parts of the robot using programming concept. When the fire is detected through the sensor, the signal goes to microcontroller and the driver circuit drives the robot to the fire accident place immediately relay and pump switch is activated and water is sprinkled through the sprinkler. In addition gas jetting nozzles can be included. Robot reduces the human effect and it is very much helpful in areas like tunnel, fatal human entering places. Necessity is the mother of invention according these words to save people life the technology can be used in development and we'll beings of human being.

***Keywords*---**Castor Wheels, Sensors, Microcontrollers, Water Sprinkles, Gas Jetting Nozzles.

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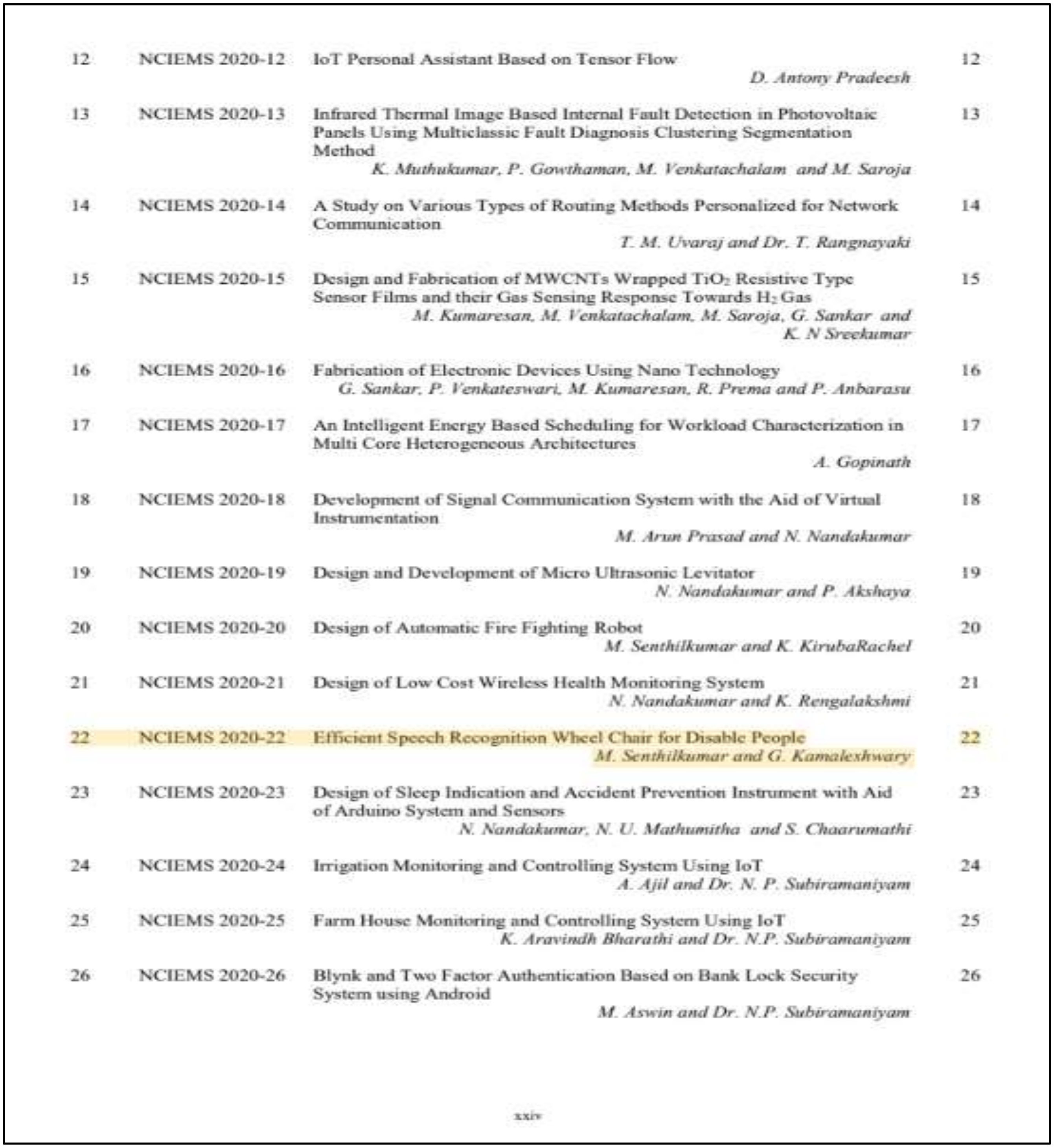

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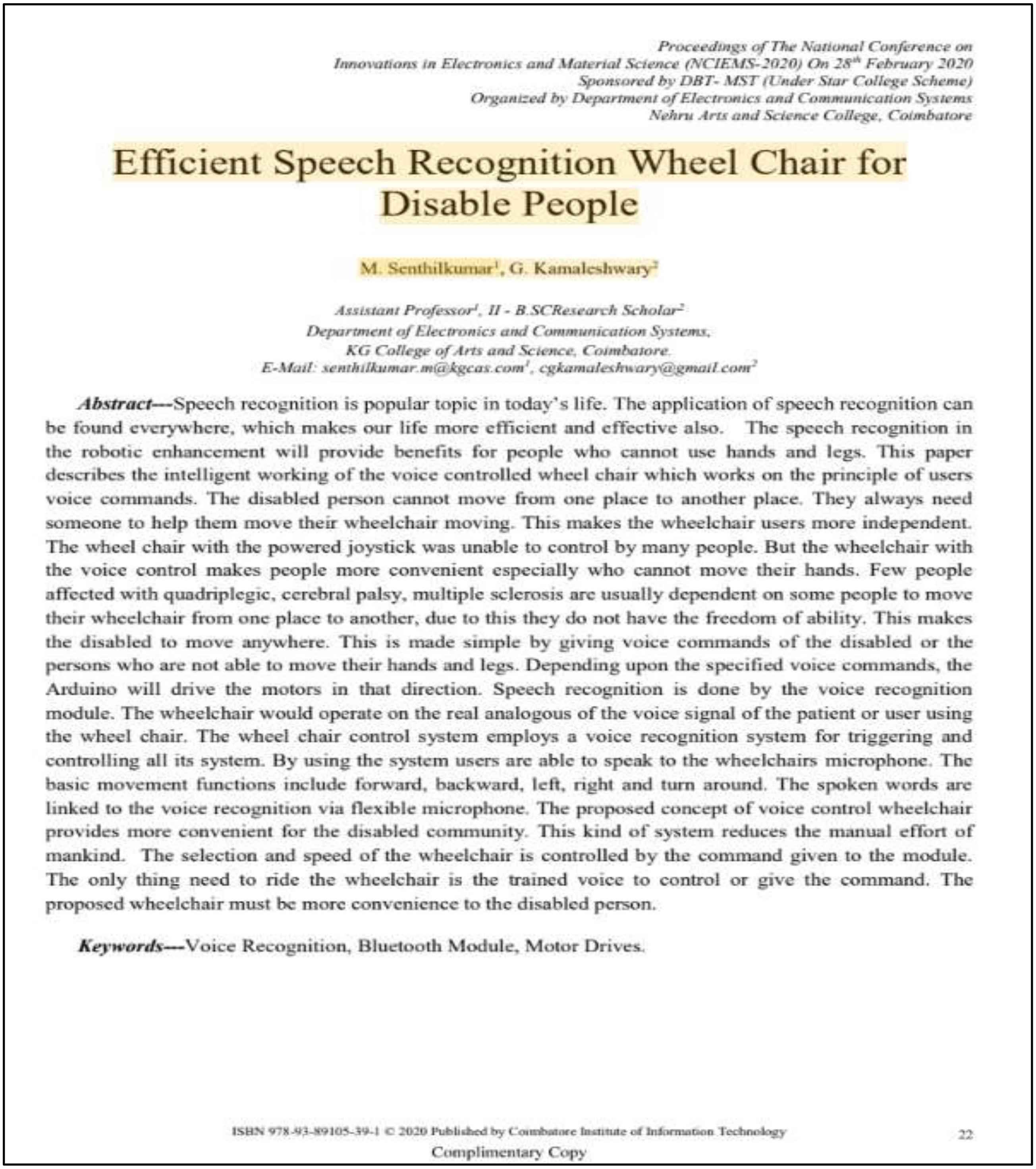

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Efficient Speech Recognition Wheel Chair for Disable People

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***Abstract*---**Speech recognition is popular topic in today's life. The application of speech recognition can be found everywhere, which makes our life more efficient and effective also. The speech recognition in the robotic enhancement will provide benefits for people who cannot use hands and legs. This paper describes the intelligent working of the voice controlled wheel chair which works on the principle of users voice commands. The disabled person cannot move from one place to another place. They always need someone to help them move their wheelchair moving. This makes the wheelchair users more independent. The wheel chair with the powered joystick was unable to control by many people. But the wheelchair with the voice control makes people more convenient especially who cannot move their hands. Few people affected with quadriplegic, cerebral palsy, multiple sclerosis are usually dependent on some people to move their wheelchair from one place to another, due to this they do not have the freedom of ability. This makes the disabled to move anywhere. This is made simple by giving voice commands of the disabled or the persons who are not able to move their hands and legs. Depending upon the specified voice commands, the Arduino will drive the motors in that direction. Speech recognition is done by the voice recognition module. The wheelchair would operate on the real analogous of the voice signal of the patient or user using the wheel chair. The wheel chair control system employs a voice recognition system for triggering and controlling all its system. By using the system users are able to speak to the wheelchairs microphone. The basic movement functions include forward, backward, left, right and turn around. The spoken words are linked to the voice recognition via flexible microphone. The proposed concept of voice control wheelchair provides more convenient for the disabled community. This kind of system reduces the manual effort of mankind. The selection and speed of the wheelchair is controlled by the command given to the module. The only thing need to ride the wheelchair is the trained voice to control or give the command. The proposed wheelchair must be more convenience to the disabled person.

***Keywords*---**Voice Recognition, Bluetooth Module, Motor Drives.

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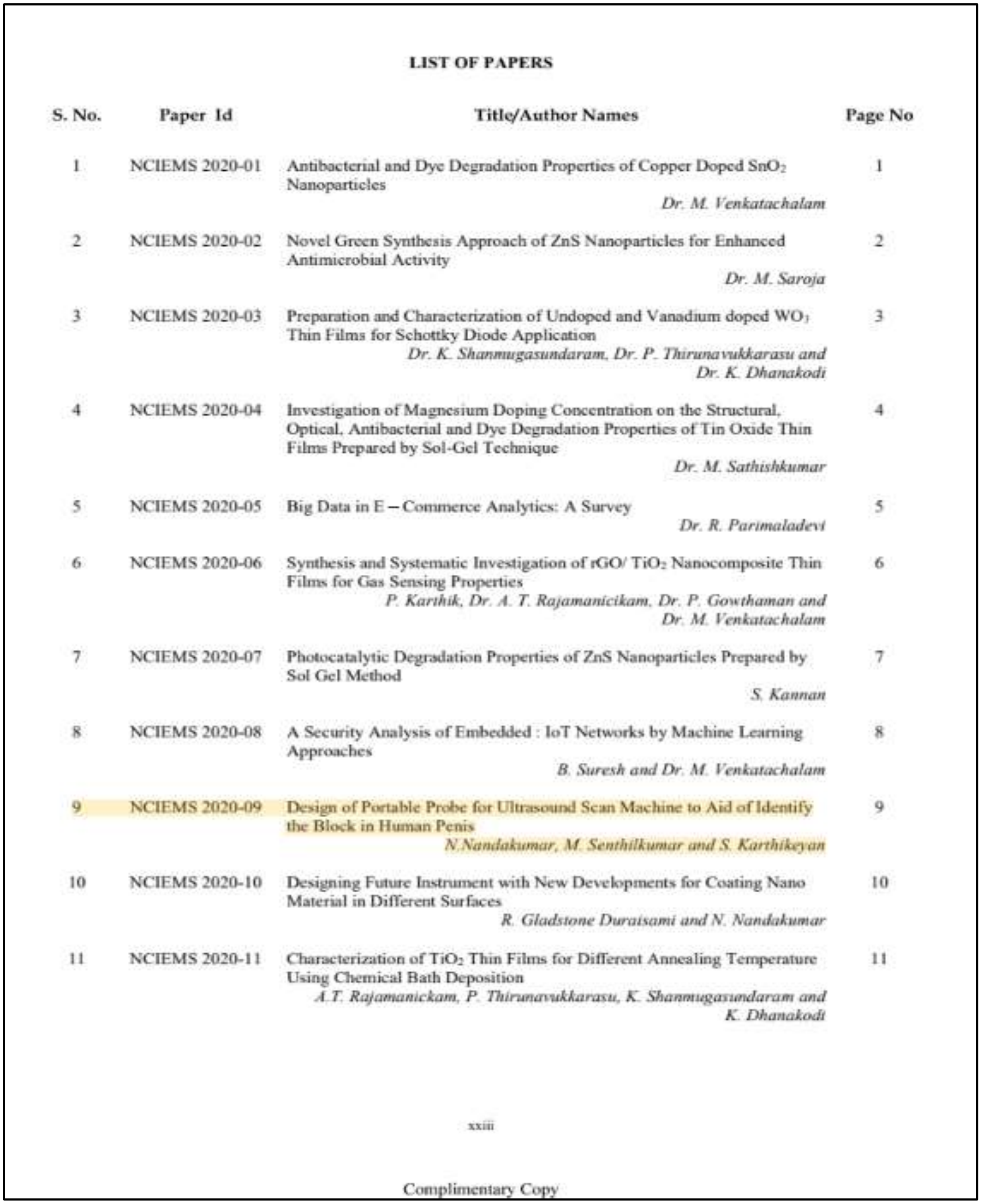

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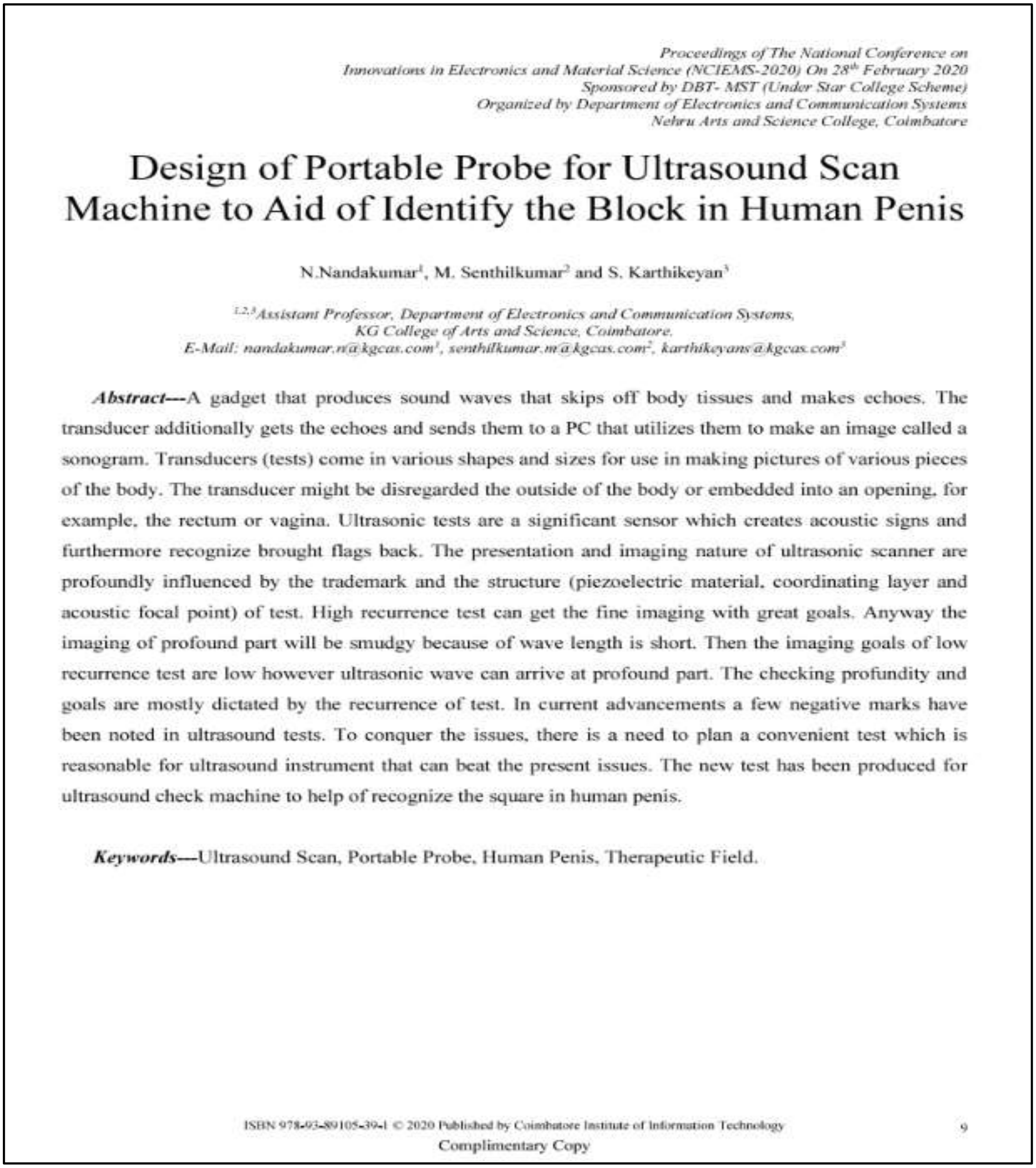

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Design of Portable Probe for Ultrasound Scan Machine to Aid of Identify the Block in Human Penis

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***Abstract*---**A gadget that produces sound waves that skips off body tissues and makes echoes. The transducer additionally gets the echoes and sends them to a PC that utilizes them to make an image called a sonogram. Transducers (tests) come in various shapes and sizes for use in making pictures of various pieces of the body. The transducer might be disregarded the outside of the body or embedded into an opening, for example, the rectum or vagina. Ultrasonic tests are a significant sensor which creates acoustic signs and furthermore recognize brought flags back. The presentation and imaging nature of ultrasonic scanner are profoundly influenced by the trademark and the structure (piezoelectric material, coordinating layer and acoustic focal point) of test. High recurrence test can get the fine imaging with great goals. Anyway the imaging of profound part will be smudgy because of wave length is short. Then the imaging goals of low recurrence test are low however ultrasonic wave can arrive at profound part. The checking profundity and goals are mostly dictated by the recurrence of test. In current advancements a few negative marks have been noted in ultrasound tests. To conquer the issues, there is a need to plan a convenient test which is reasonable for ultrasound instrument that can beat the present issues. The new test has been produced for ultrasound check machine to help of recognize the square in human penis.

***Keywords*---**Ultrasound Scan, Portable Probe, Human Penis, Therapeutic Field.

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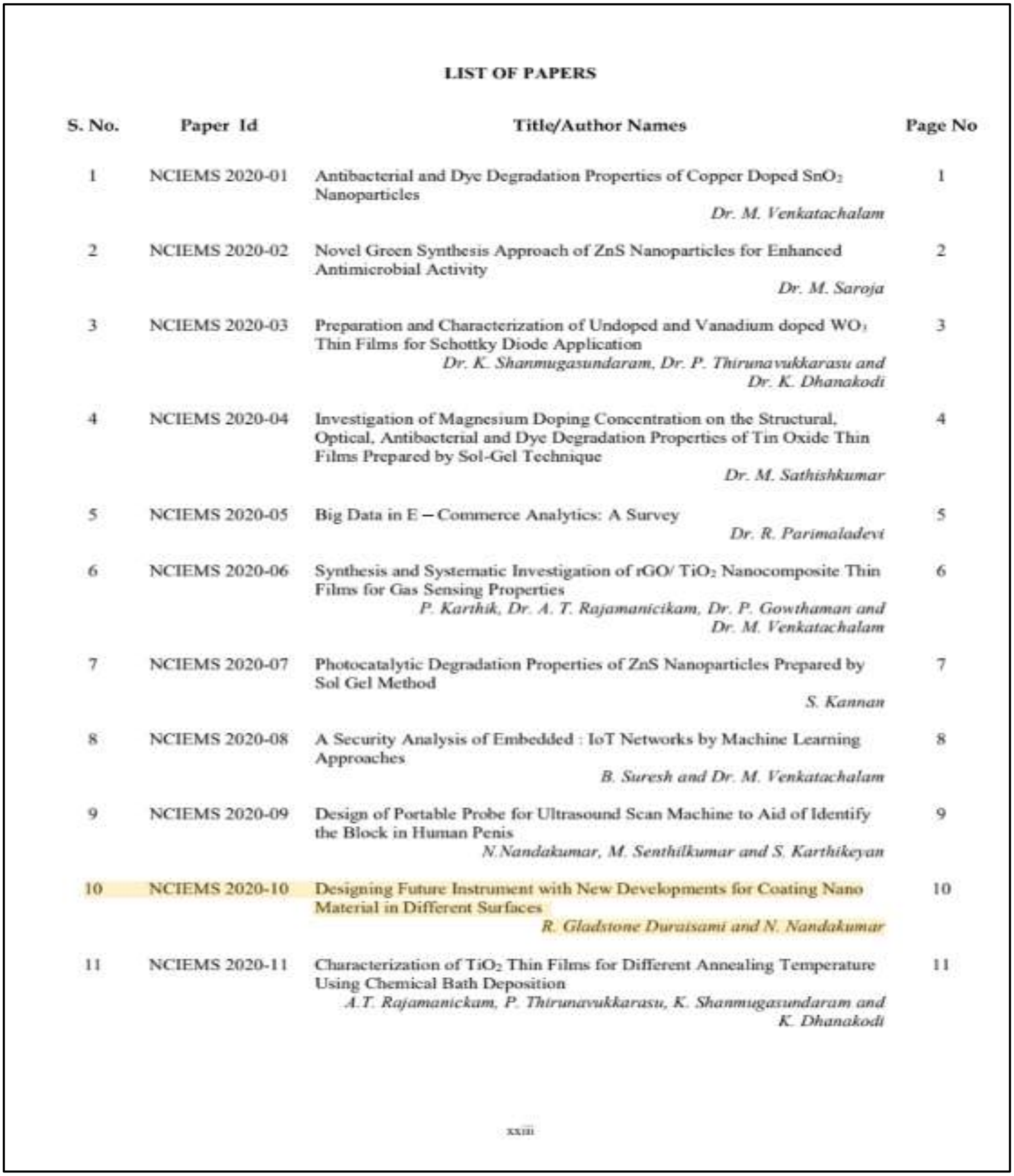

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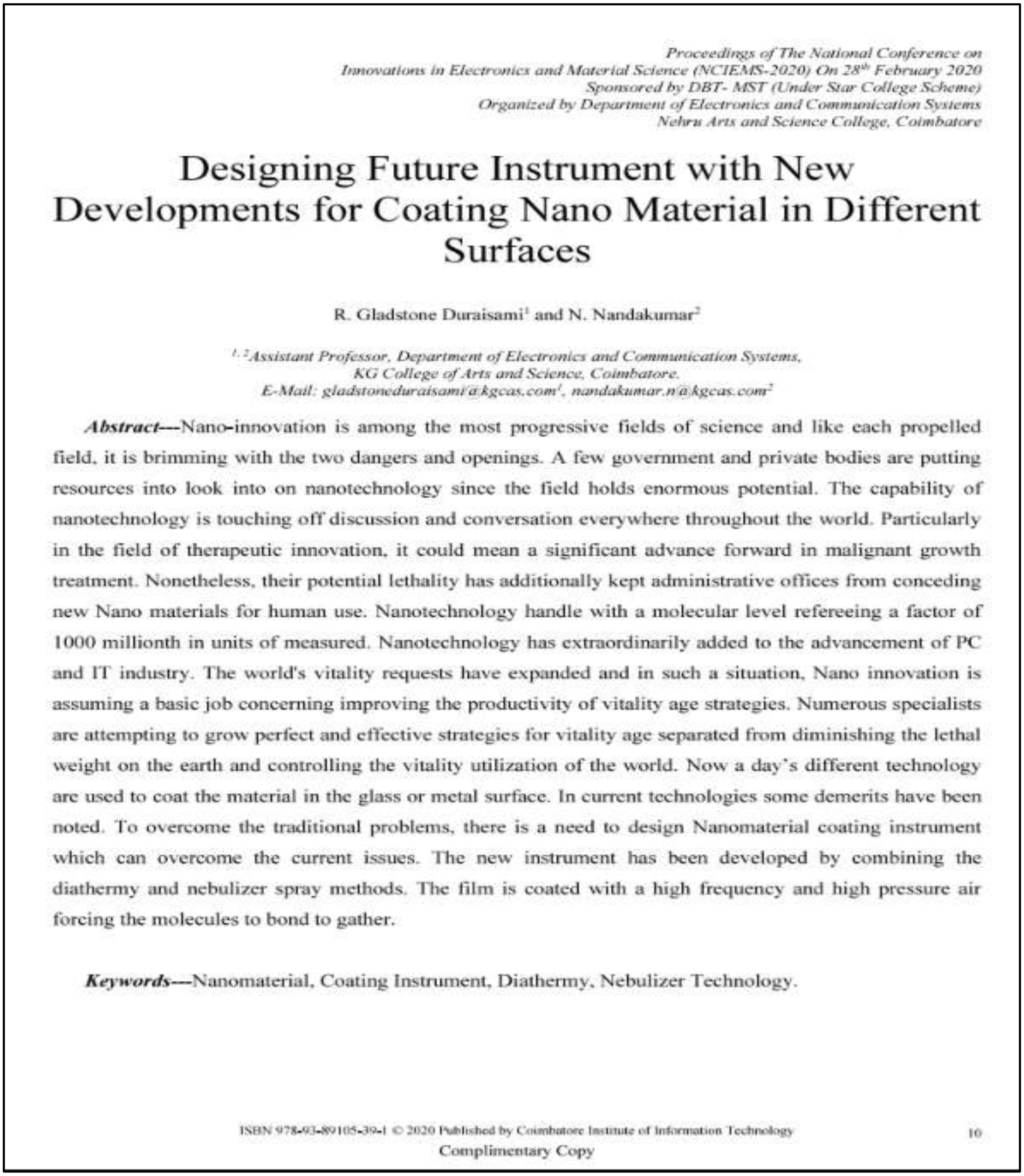

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Designing Future Instrument with New Developments for Coating Nano Material in Different Surfaces

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***Abstract*---**Nano-innovation is among the most progressive fields of science and like each propelled field, it is brimming with the two dangers and openings. A few government and private bodies are putting resources into look into on nanotechnology since the field holds enormous potential. The capability of nanotechnology is touching off discussion and conversation everywhere throughout the world. Particularly in the field of therapeutic innovation, it could mean a significant advance forward in malignant growth treatment. Nonetheless, their potential lethality has additionally kept administrative offices from conceding new Nano materials for human use. Nanotechnology handle with a molecular level refereeing a factor of 1000 millionth in units of measured. Nanotechnology has extraordinarily added to the advancement of PC and IT industry. The world's vitality requests have expanded and in such a situation, Nano innovation is assuming a basic job concerning improving the productivity of vitality age strategies. Numerous specialists are attempting to grow perfect and effective strategies for vitality age separated from diminishing the lethal weight on the earth and controlling the vitality utilization of the world. Now a day's different technology are used to coat the material in the glass or metal surface. In current technologies some demerits have been noted. To overcome the traditional problems, there is a need to design Nanomaterial coating instrument which can overcome the current issues. The new instrument has been developed by combining the diathermy and nebulizer spray methods. The film is coated with a high frequency and high pressure air forcing the molecules to bond to gather.

***Keywords*---**Nanomaterial, Coating Instrument, Diathermy, Nebulizer Technology.

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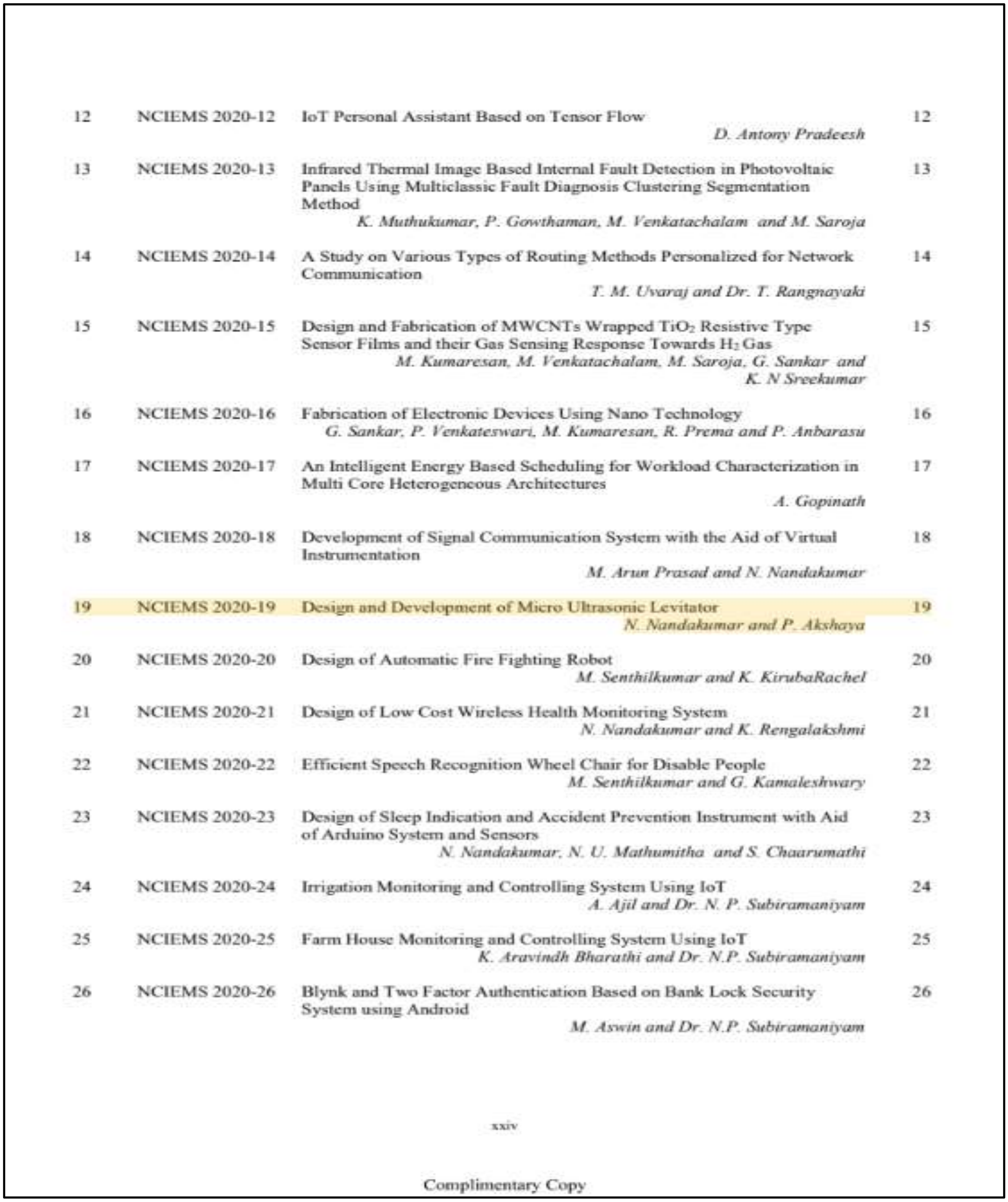

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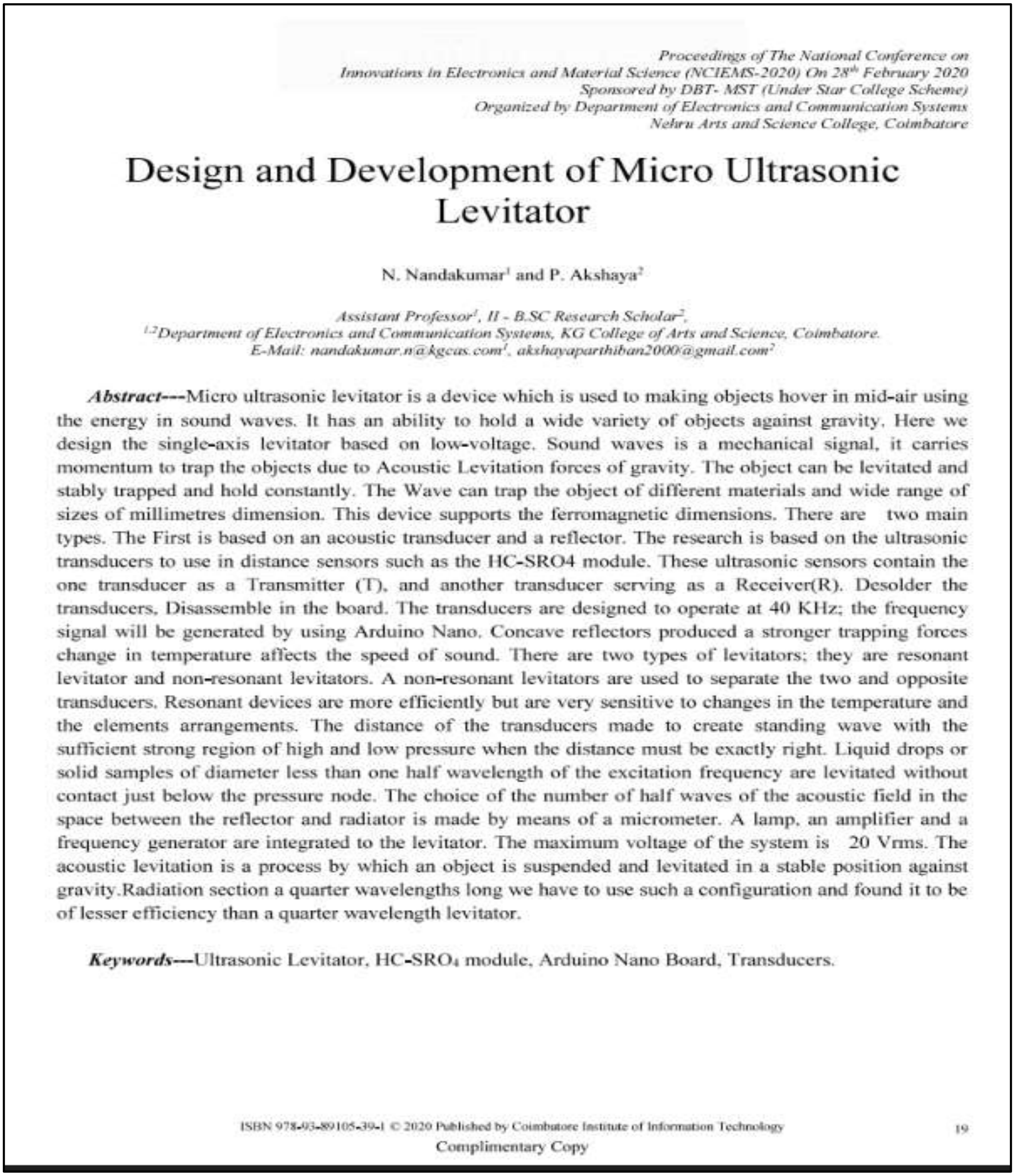

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Design and Development of Micro Ultrasonic Levitator

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Abstract---Micro ultrasonic levitator is a device which is used to making objects hover in mid-air using the energy in sound waves. It has an ability to hold a wide variety of objects against gravity. Here we design the single-axis levitator based on low-voltage. Sound waves is a mechanical signal, it carries momentum to trap the objects due to Acoustic Levitation forces of gravity. The object can be levitated and stably trapped and hold constantly. The Wave can trap the object of different materials and wide range of sizes of millimetres dimension. This device supports the ferromagnetic dimensions. There are two main types. The First is based on an acoustic transducer and a reflector. The research is based on the ultrasonic transducers to use in distance sensors such as the HC-SRO4 module. These ultrasonic sensors contain the one transducer as a Transmitter (T), and another transducer serving as a Receiver(R). Desolder the transducers, Disassemble in the board. The transducers are designed to operate at 40 KHz; the frequency signal will be generated by using Arduino Nano. Concave reflectors produced a stronger trapping forces change in temperature affects the speed of sound. There are two types of levitators; they are resonant levitator and non-resonant levitators. A non-resonant levitators are used to separate the two and opposite transducers. Resonant devices are more efficiently but are very sensitive to changes in the temperature and the elements arrangements. The distance of the transducers made to create standing wave with the sufficient strong region of high and low pressure when the distance must be exactly right. Liquid drops or solid samples of diameter less than one half wavelength of the excitation frequency are levitated without contact just below the pressure node. The choice of the number of half waves of the acoustic field in the space between the reflector and radiator is made by means of a micrometer. A lamp, an amplifier and a frequency generator are integrated to the levitator. The maximum voltage of the system is 20 Vrms. The acoustic levitation is a process by which an object is suspended and levitated in a stable position against gravity.Radiation section a quarter wavelengths long we have to use such a configuration and found it to be of lesser efficiency than a quarter wavelength levitator.

Keywords---Ultrasonic Levitator, HC-SRO$_4$ module, Arduino Nano Board, Transducers.

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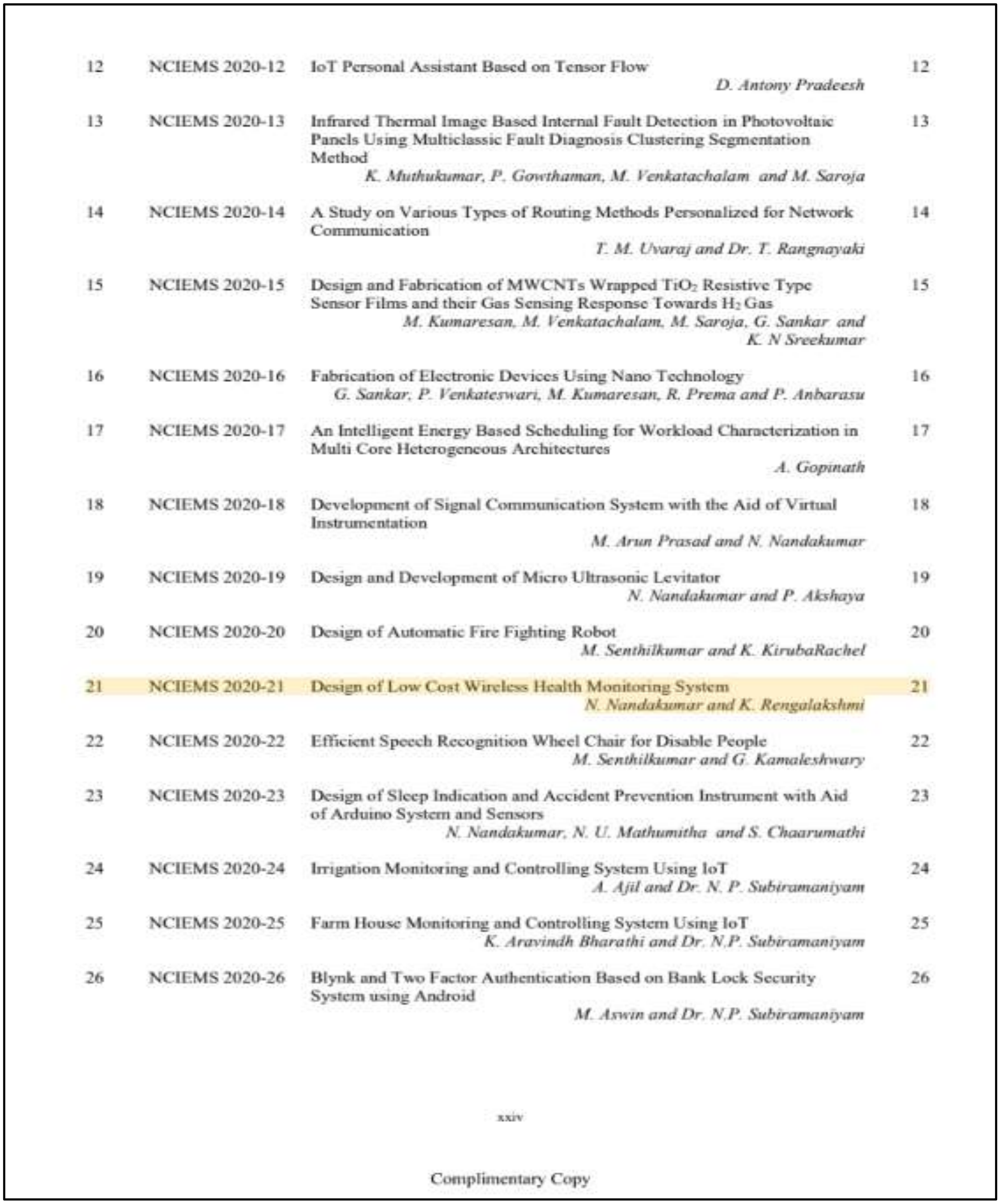

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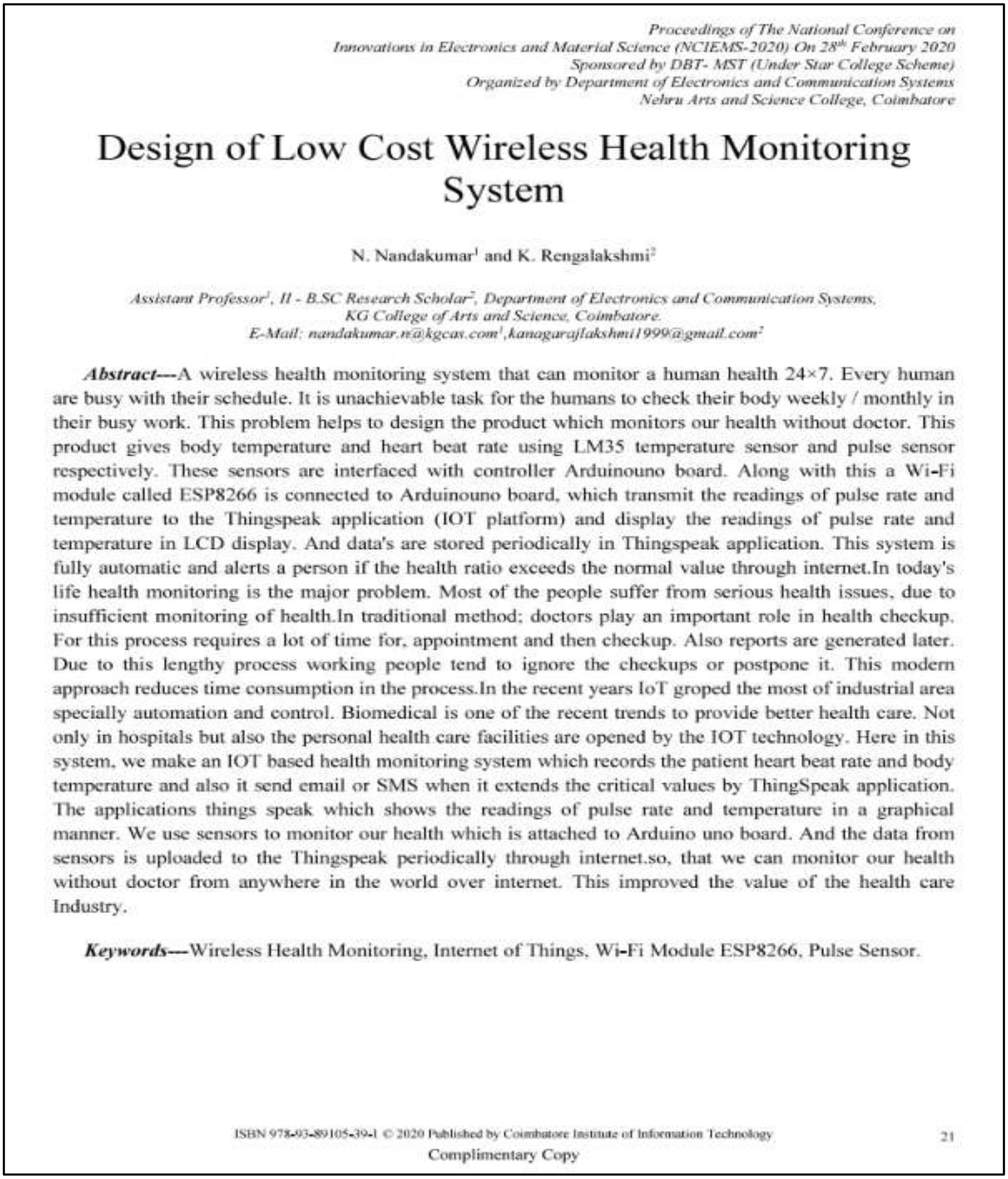

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Design of Low Cost Wireless Health Monitoring System

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Abstract---A wireless health monitoring system that can monitor a human health 24×7. Every human are busy with their schedule. It is unachievable task for the humans to check their body weekly / monthly in their busy work. This problem helps to design the product which monitors our health without doctor. This product gives body temperature and heart beat rate using LM35 temperature sensor and pulse sensor respectively. These sensors are interfaced with controller Arduinouno board. Along with this a Wi-Fi module called ESP8266 is connected to Arduinouno board, which transmit the readings of pulse rate and temperature to the Thingspeak application (IOT platform) and display the readings of pulse rate and temperature in LCD display. And data's are stored periodically in Thingspeak application. This system is fully automatic and alerts a person if the health ratio exceeds the normal value through internet.In today's life health monitoring is the major problem. Most of the people suffer from serious health issues, due to insufficient monitoring of health.In traditional method; doctors play an important role in health checkup. For this process requires a lot of time for, appointment and then checkup. Also reports are generated later. Due to this lengthy process working people tend to ignore the checkups or postpone it. This modern approach reduces time consumption in the process.In the recent years IoT groped the most of industrial area specially automation and control. Biomedical is one of the recent trends to provide better health care. Not only in hospitals but also the personal health care facilities are opened by the IOT technology. Here in this system, we make an IOT based health monitoring system which records the patient heart beat rate and body temperature and also it send email or SMS when it extends the critical values by ThingSpeak application. The applications things speak which shows the readings of pulse rate and temperature in a graphical manner. We use sensors to monitor our health which is attached to Arduino uno board. And the data from sensors is uploaded to the Thingspeak periodically through internet.so, that we can monitor our health without doctor from anywhere in the world over internet. This improved the value of the health care Industry.

Keywords---Wireless Health Monitoring, Internet of Things, Wi-Fi Module ESP8266, Pulse Sensor.

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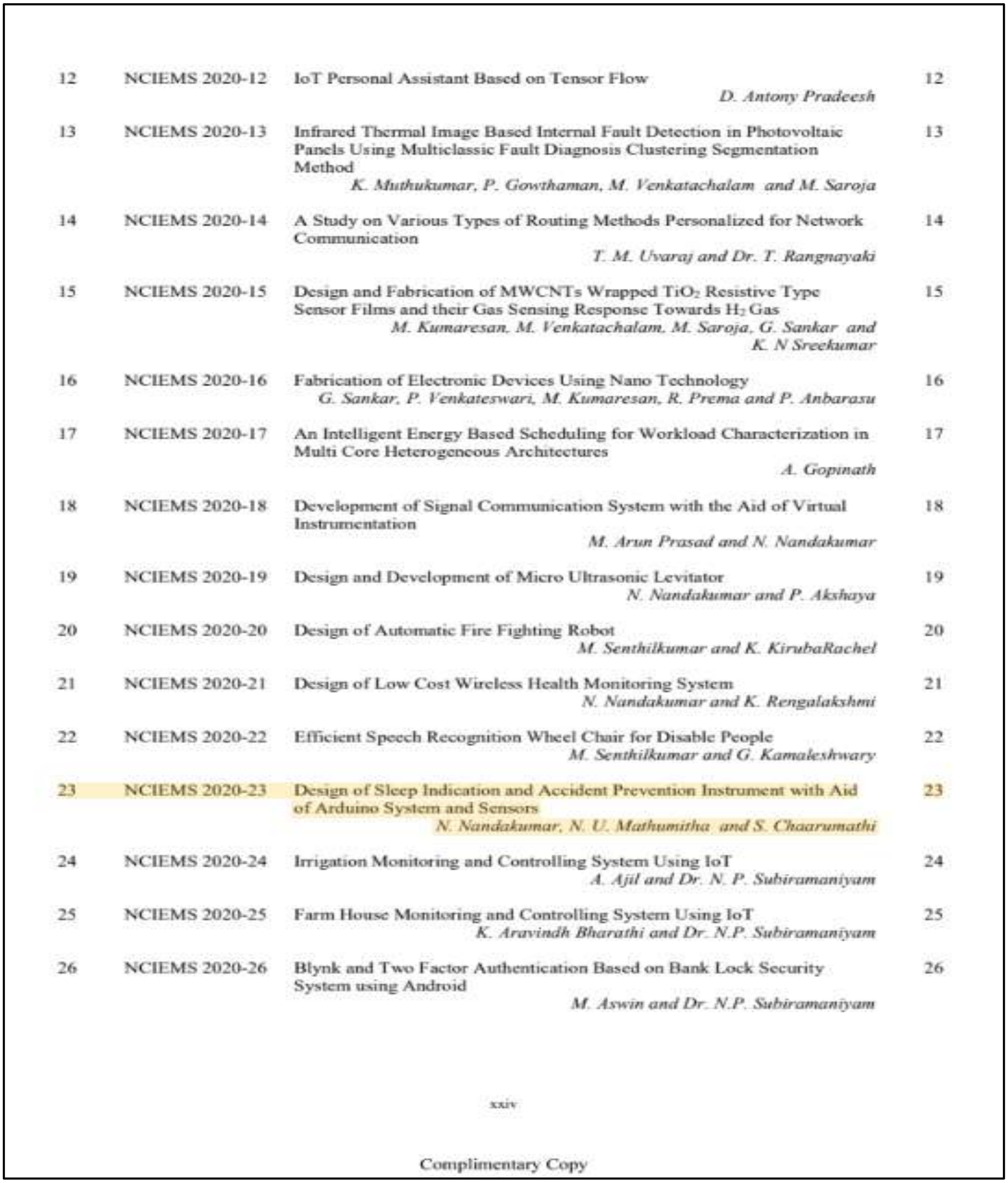

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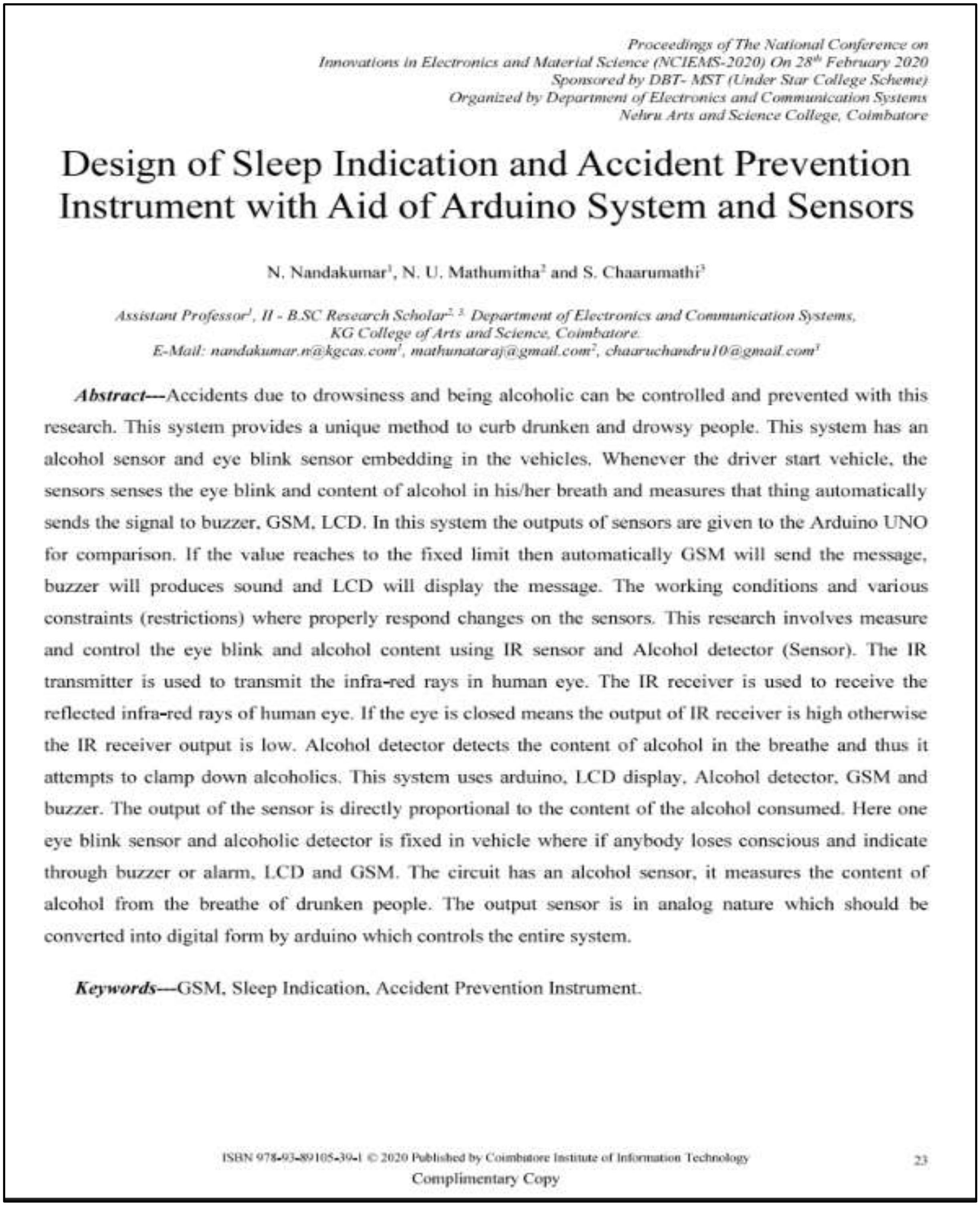

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Design of Sleep Indication and Accident Prevention Instrument with Aid of Arduino System and Sensors

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Abstract---Accidents due to drowsiness and being alcoholic can be controlled and prevented with this research. This system provides a unique method to curb drunken and drowsy people. This system has an alcohol sensor and eye blink sensor embedding in the vehicles. Whenever the driver start vehicle, the sensors senses the eye blink and content of alcohol in his/her breath and measures that thing automatically sends the signal to buzzer, GSM, LCD. In this system the outputs of sensors are given to the Arduino UNO for comparison. If the value reaches to the fixed limit then automatically GSM will send the message, buzzer will produces sound and LCD will display the message. The working conditions and various constraints (restrictions) where properly respond changes on the sensors. This research involves measure and control the eye blink and alcohol content using IR sensor and Alcohol detector (Sensor). The IR transmitter is used to transmit the infra-red rays in human eye. The IR receiver is used to receive the reflected infra-red rays of human eye. If the eye is closed means the output of IR receiver is high otherwise the IR receiver output is low. Alcohol detector detects the content of alcohol in the breathe and thus it attempts to clamp down alcoholics. This system uses arduino, LCD display, Alcohol detector, GSM and buzzer. The output of the sensor is directly proportional to the content of the alcohol consumed. Here one eye blink sensor and alcoholic detector is fixed in vehicle where if anybody loses conscious and indicate through buzzer or alarm, LCD and GSM. The circuit has an alcohol sensor, it measures the content of alcohol from the breathe of drunken people. The output sensor is in analog nature which should be converted into digital form by arduino which controls the entire system.

Keywords---GSM, Sleep Indication, Accident Prevention Instrument.

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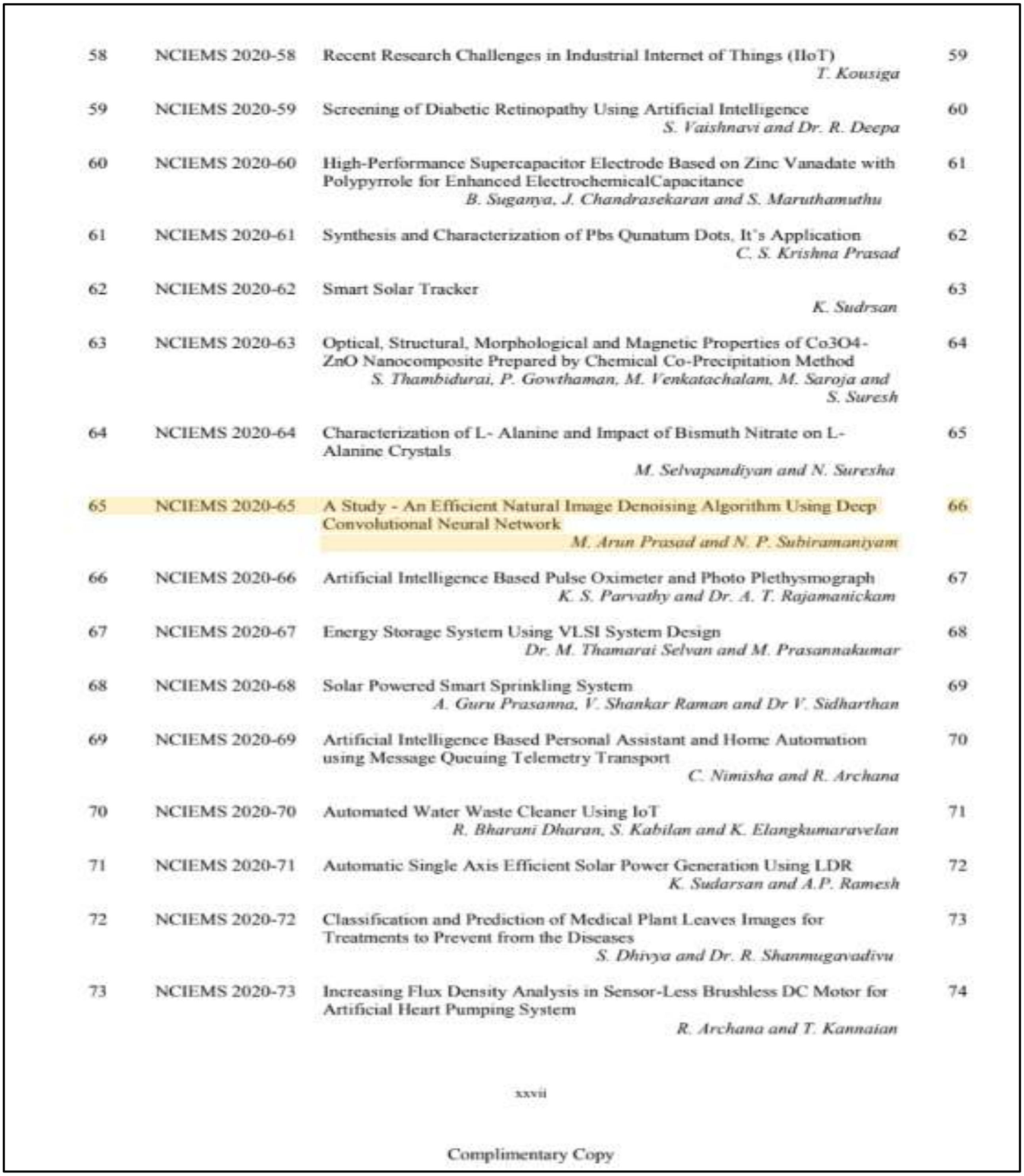

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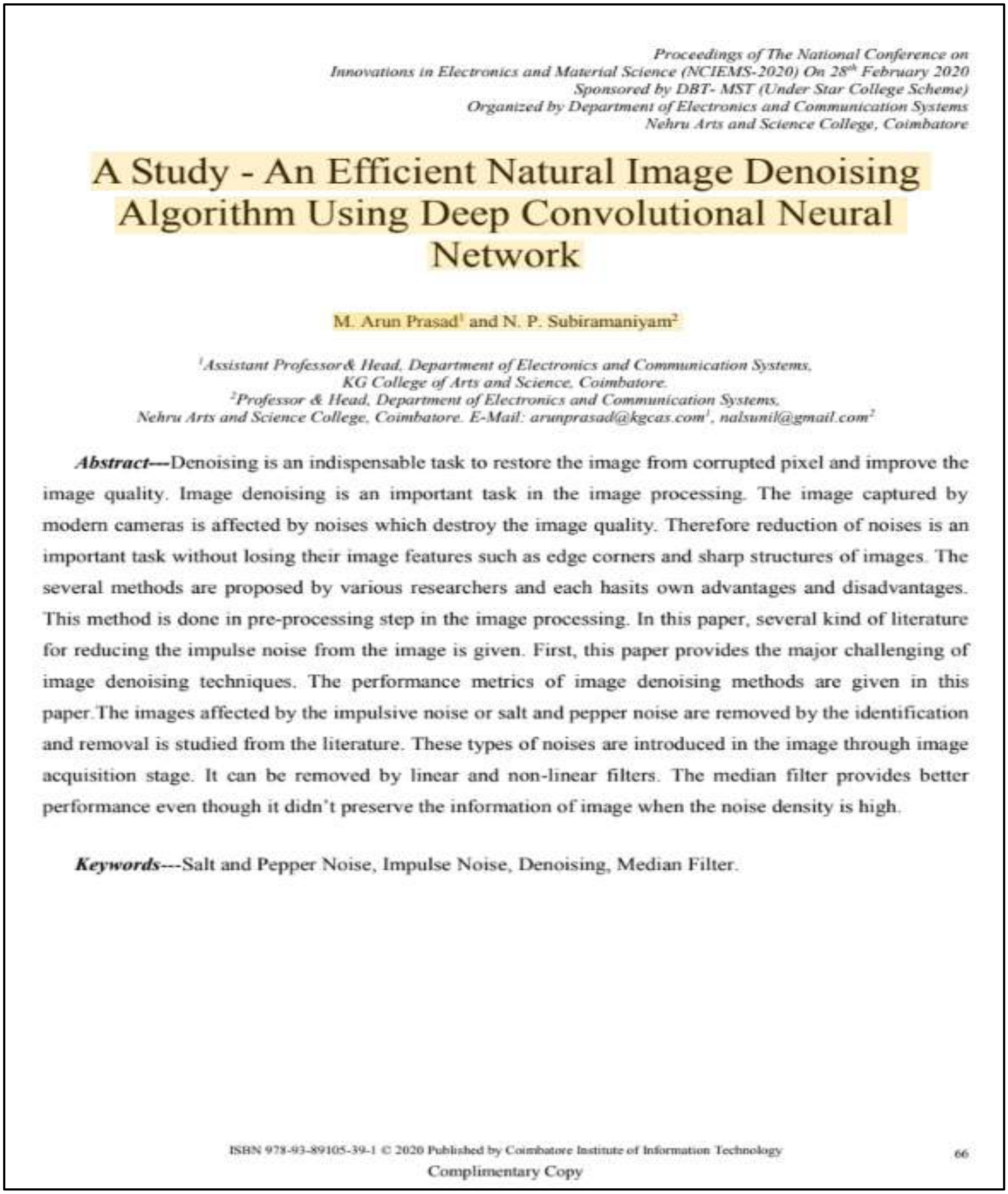

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A Study - An Efficient Natural Image Denoising Algorithm Using Deep Convolutional Neural Network

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Abstract---Denoising is an indispensable task to restore the image from corrupted pixel and improve the image quality. Image denoising is an important task in the image processing. The image captured by modern cameras is affected by noises which destroy the image quality. Therefore reduction of noises is an important task without losing their image features such as edge corners and sharp structures of images. The several methods are proposed by various researchers and each hasits own advantages and disadvantages. This method is done in pre-processing step in the image processing. In this paper, several kind of literature for reducing the impulse noise from the image is given. First, this paper provides the major challenging of image denoising techniques. The performance metrics of image denoising methods are given in this paper.The images affected by the impulsive noise or salt and pepper noise are removed by the identification and removal is studied from the literature. These types of noises are introduced in the image through image acquisition stage. It can be removed by linear and non-linear filters. The median filter provides better performance even though it didn't preserve the information of image when the noise density is high.

Keywords---Salt and Pepper Noise, Impulse Noise, Denoising, Median Filter.

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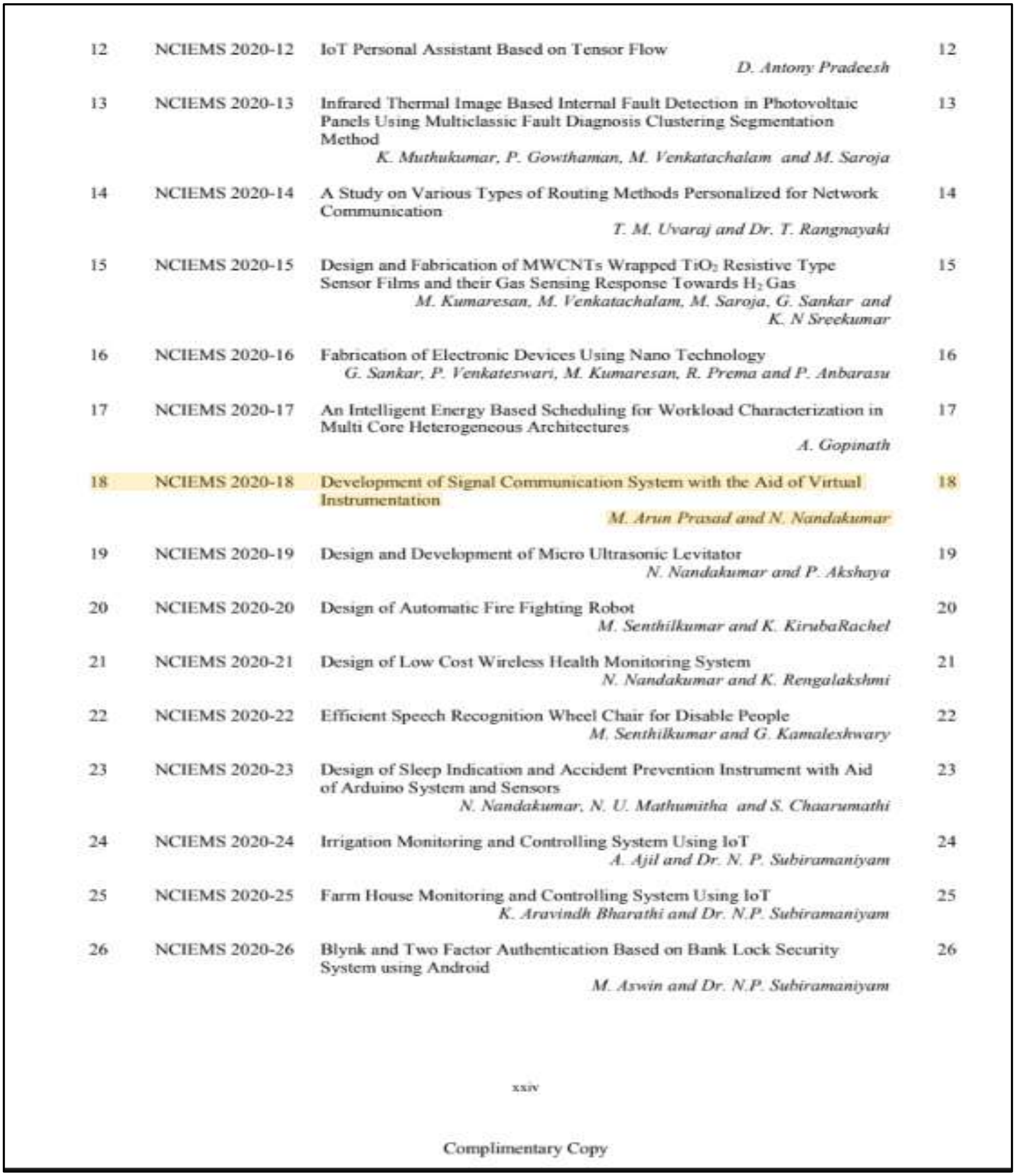

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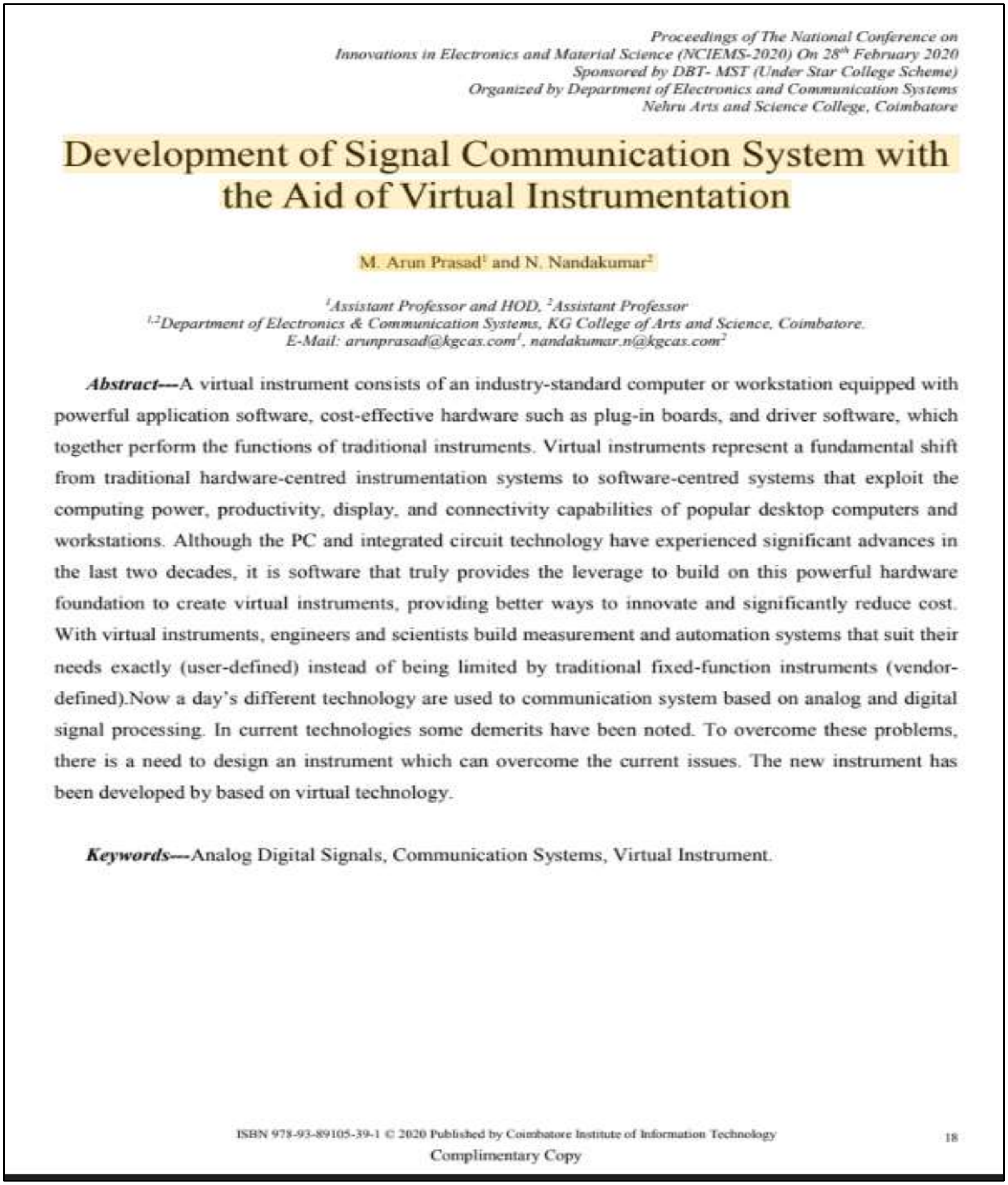

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Development of Signal Communication System with the Aid of Virtual Instrumentation

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Abstract---A virtual instrument consists of an industry-standard computer or workstation equipped with powerful application software, cost-effective hardware such as plug-in boards, and driver software, which together perform the functions of traditional instruments. Virtual instruments represent a fundamental shift from traditional hardware-centred instrumentation systems to software-centred systems that exploit the computing power, productivity, display, and connectivity capabilities of popular desktop computers and workstations. Although the PC and integrated circuit technology have experienced significant advances in the last two decades, it is software that truly provides the leverage to build on this powerful hardware foundation to create virtual instruments, providing better ways to innovate and significantly reduce cost. With virtual instruments, engineers and scientists build measurement and automation systems that suit their needs exactly (user-defined) instead of being limited by traditional fixed-function instruments (vendor-defined).Now a day's different technology are used to communication system based on analog and digital signal processing. In current technologies some demerits have been noted. To overcome these problems, there is a need to design an instrument which can overcome the current issues. The new instrument has been developed by based on virtual technology.

Keywords---Analog Digital Signals, Communication Systems, Virtual Instrument.

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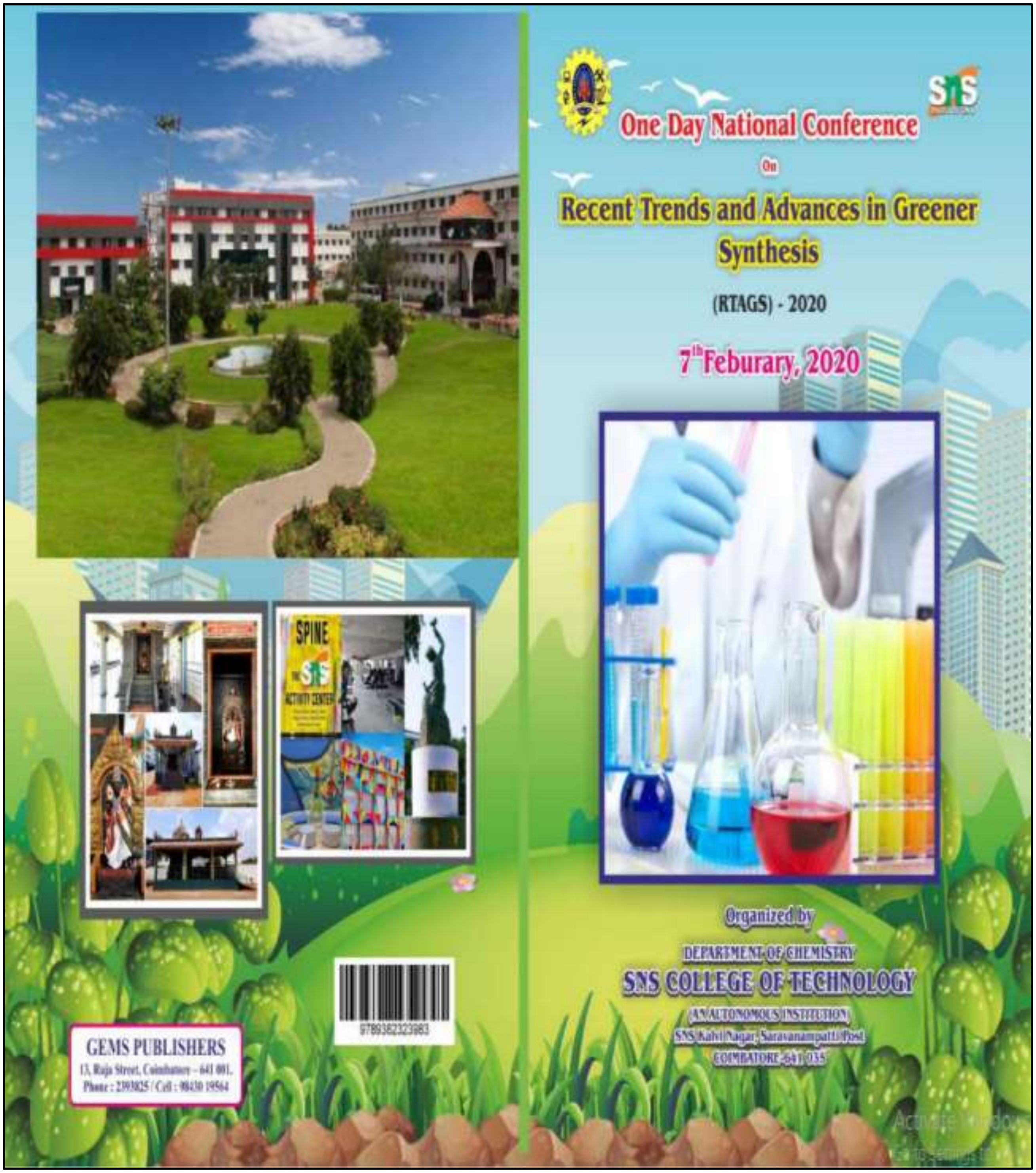

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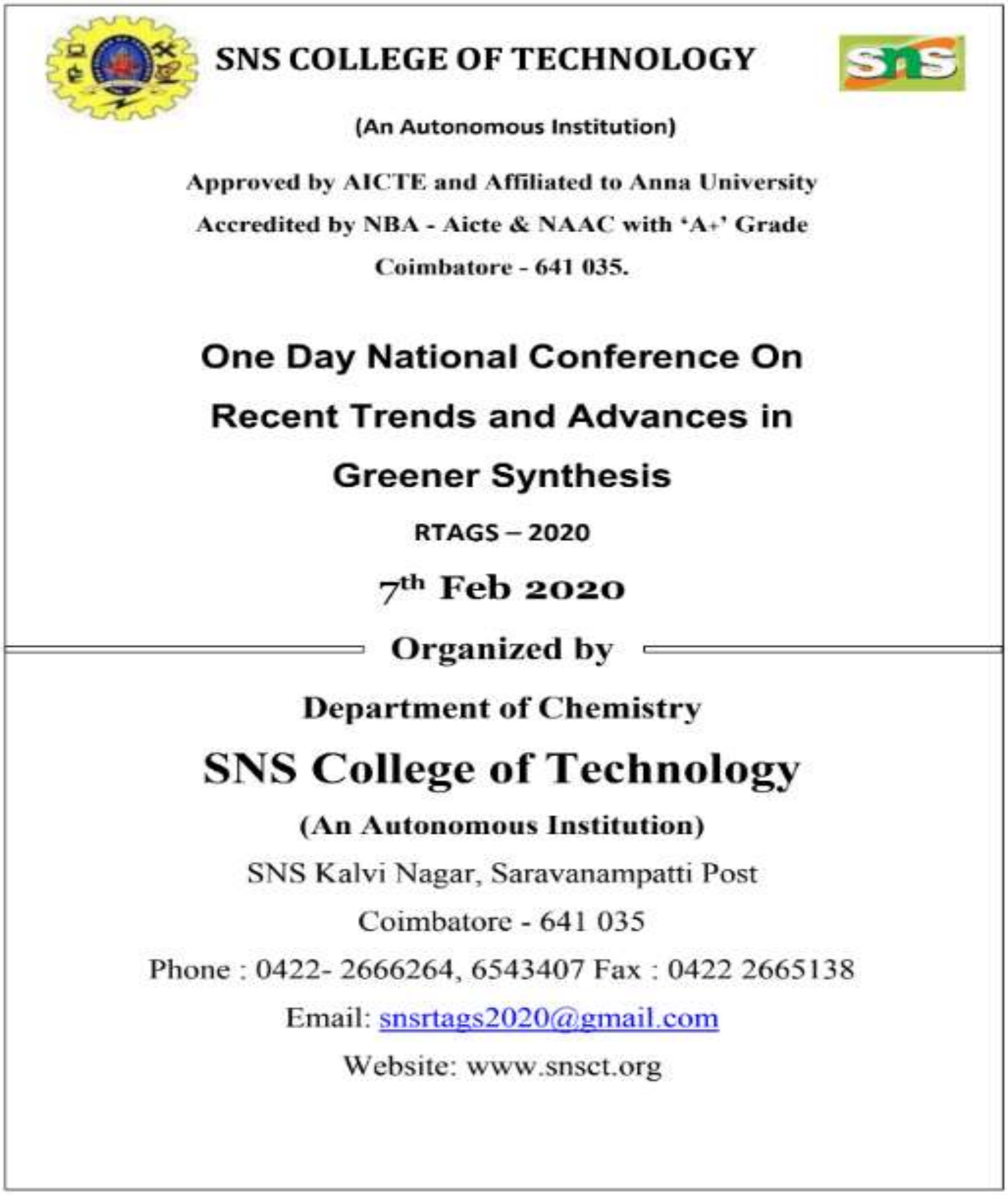

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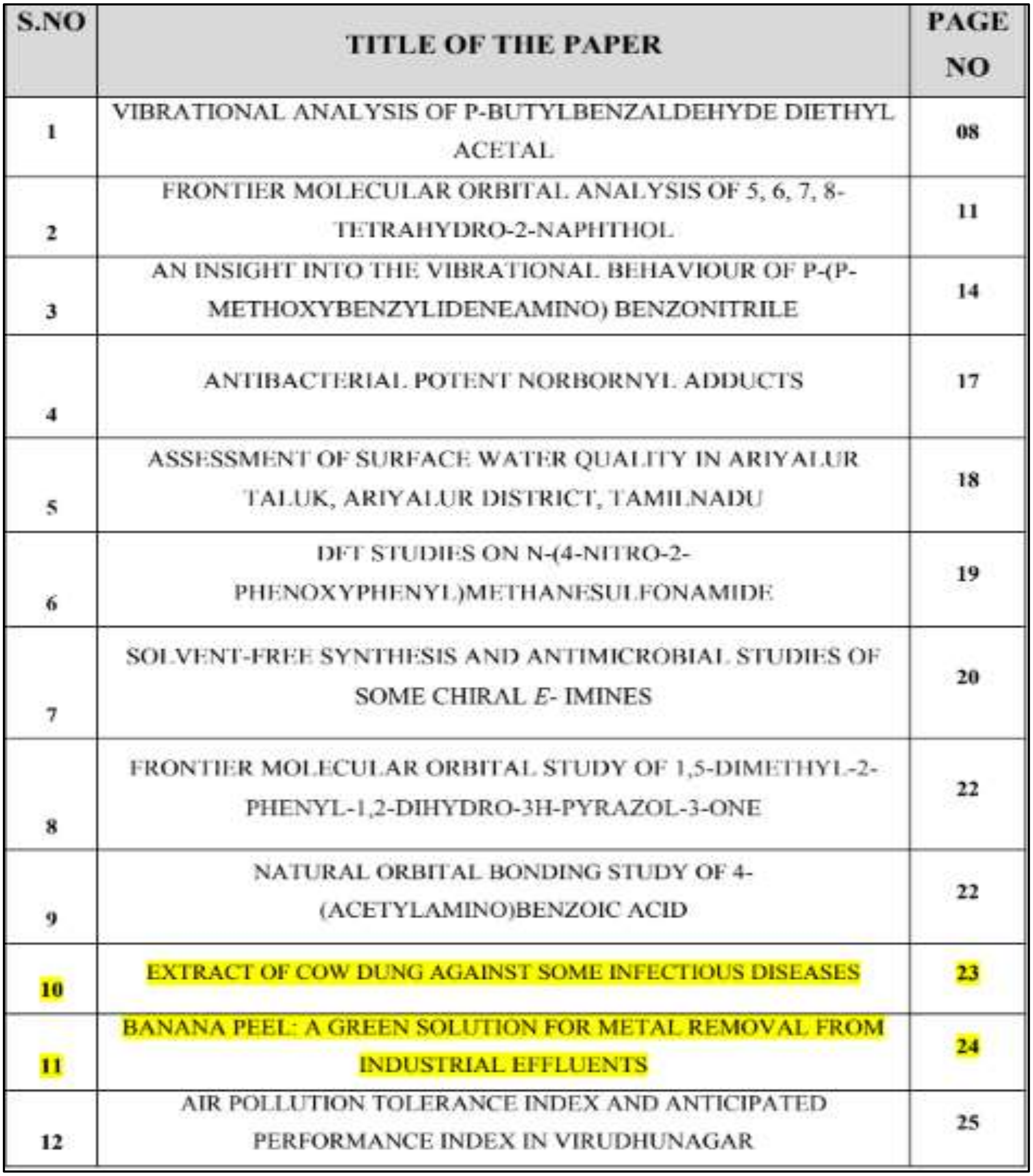

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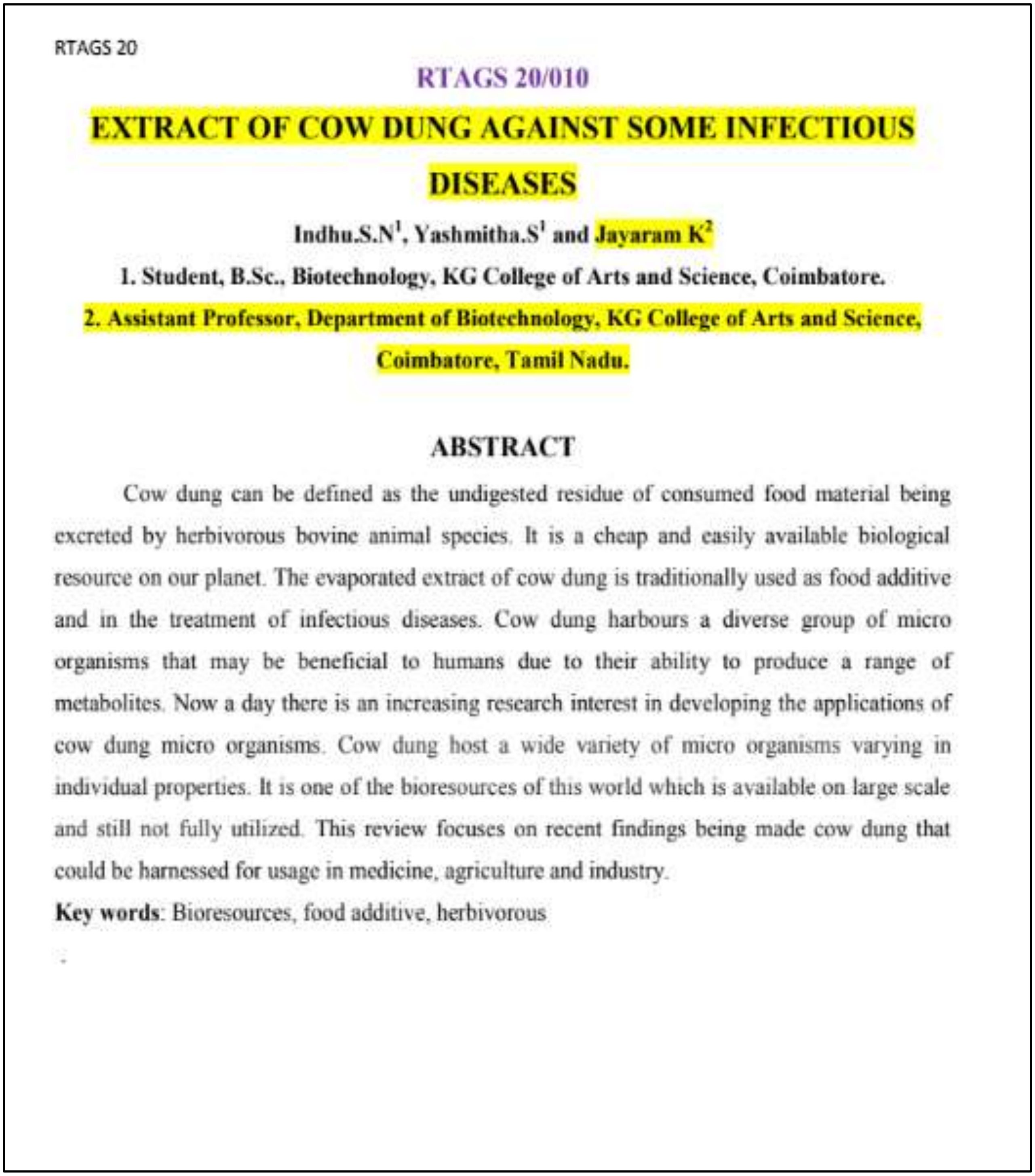

RTAGS 20/010

EXTRACT OF COW DUNG AGAINST SOME INFECTIOUS DISEASES

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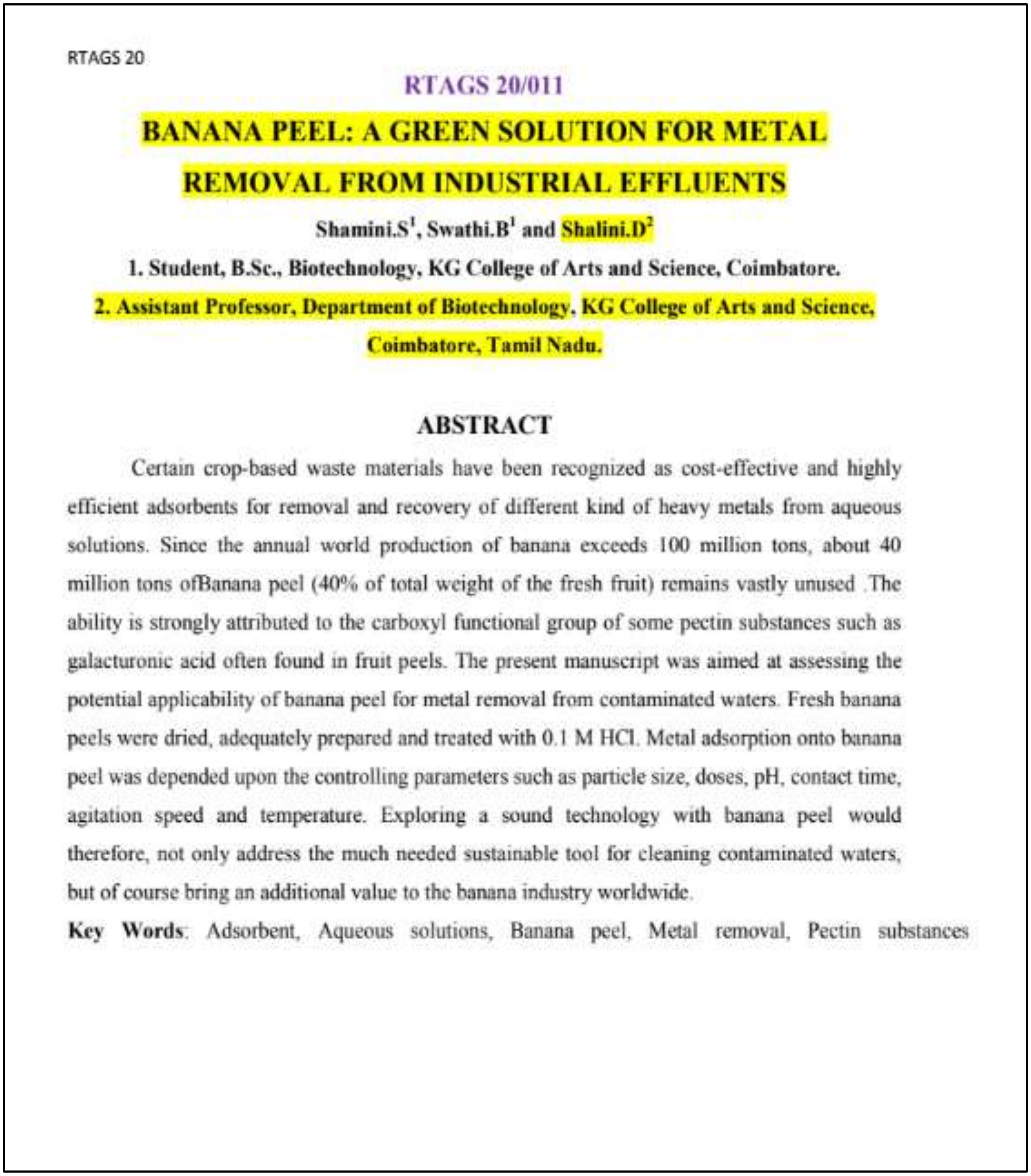
2. Assistant Professor, Department of Biotechnology, KG College of Arts and Science, Coimbatore, Tamil Nadu.

ABSTRACT

Cow dung can be defined as the undigested residue of consumed food material being excreted by herbivorous bovine animal species. It is a cheap and easily available biological resource on our planet. The evaporated extract of cow dung is traditionally used as food additive and in the treatment of infectious diseases. Cow dung harbours a diverse group of micro organisms that may be beneficial to humans due to their ability to produce a range of metabolites. Now a day there is an increasing research interest in developing the applications of cow dung micro organisms. Cow dung host a wide variety of micro organisms varying in individual properties. It is one of the bioresources of this world which is available on large scale and still not fully utilized. This review focuses on recent findings being made cow dung that could be harnessed for usage in medicine, agriculture and industry.

Key words: Bioresources, food additive, herbivorous



RTAGS 20/011

BANANA PEEL: A GREEN SOLUTION FOR METAL REMOVAL FROM INDUSTRIAL EFFLUENTS

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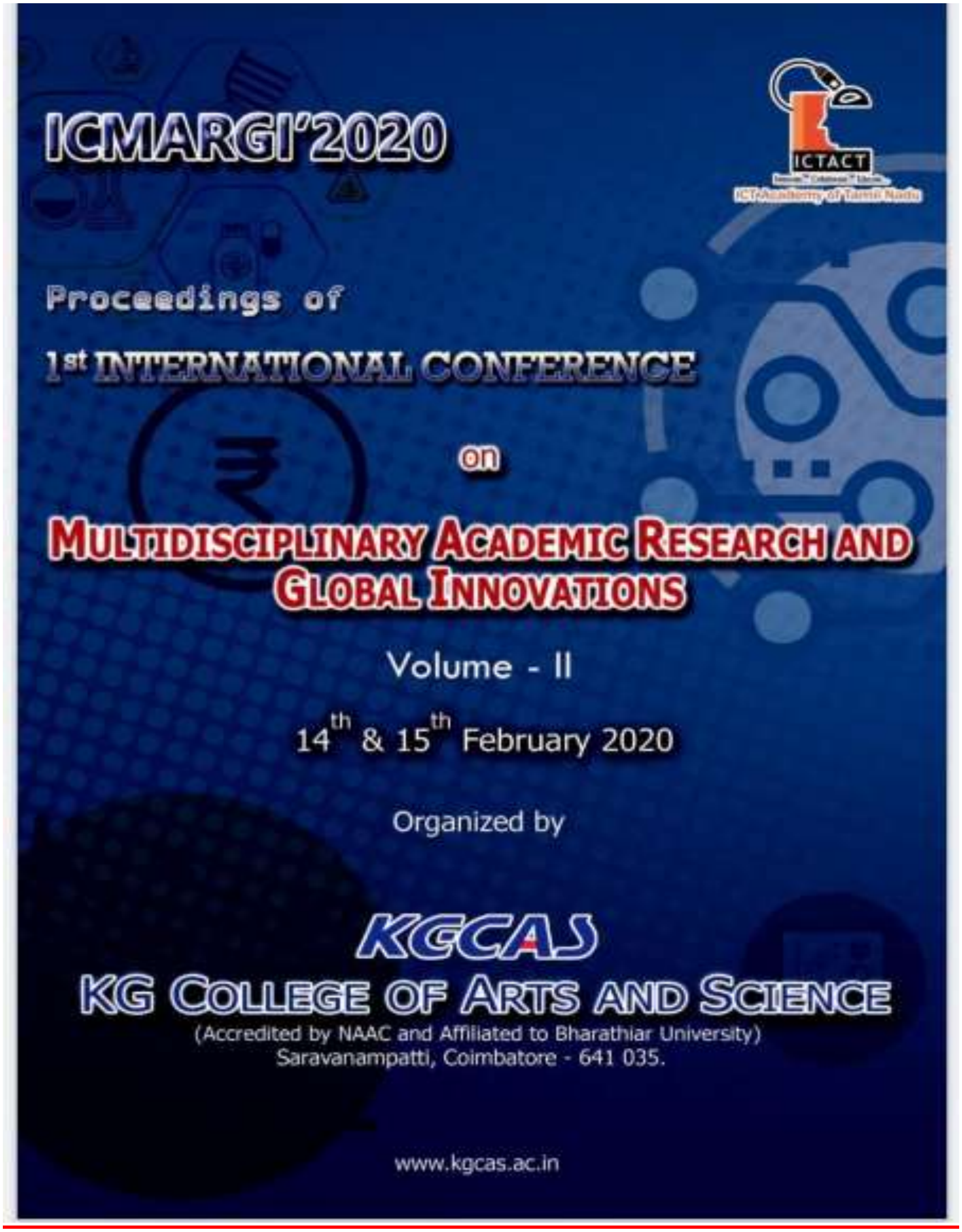
ABSTRACT

Certain crop-based waste materials have been recognized as cost-effective and highly efficient adsorbents for removal and recovery of different kind of heavy metals from aqueous solutions. Since the annual world production of banana exceeds 100 million tons, about 40 million tons ofBanana peel (40% of total weight of the fresh fruit) remains vastly unused .The ability is strongly attributed to the carboxyl functional group of some pectin substances such as galacturonic acid often found in fruit peels. The present manuscript was aimed at assessing the potential applicability of banana peel for metal removal from contaminated waters. Fresh banana peels were dried, adequately prepared and treated with 0.1 M HCl. Metal adsorption onto banana peel was depended upon the controlling parameters such as particle size, doses, pH, contact time, agitation speed and temperature. Exploring a sound technology with banana peel would therefore, not only address the much needed sustainable tool for cleaning contaminated waters, but of course bring an additional value to the banana industry worldwide.

Key Words: Adsorbent, Aqueous solutions, Banana peel, Metal removal, Pectin substances



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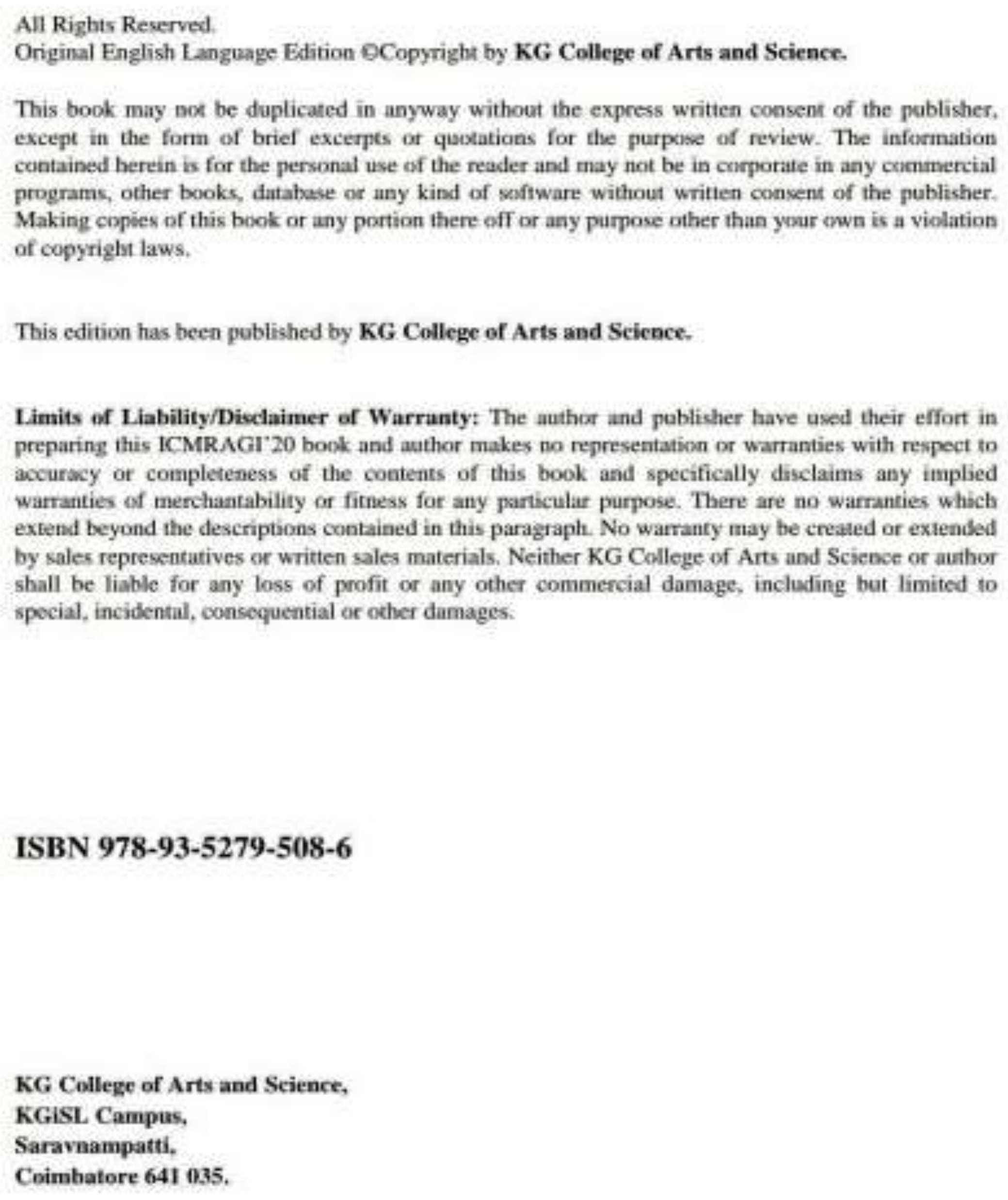

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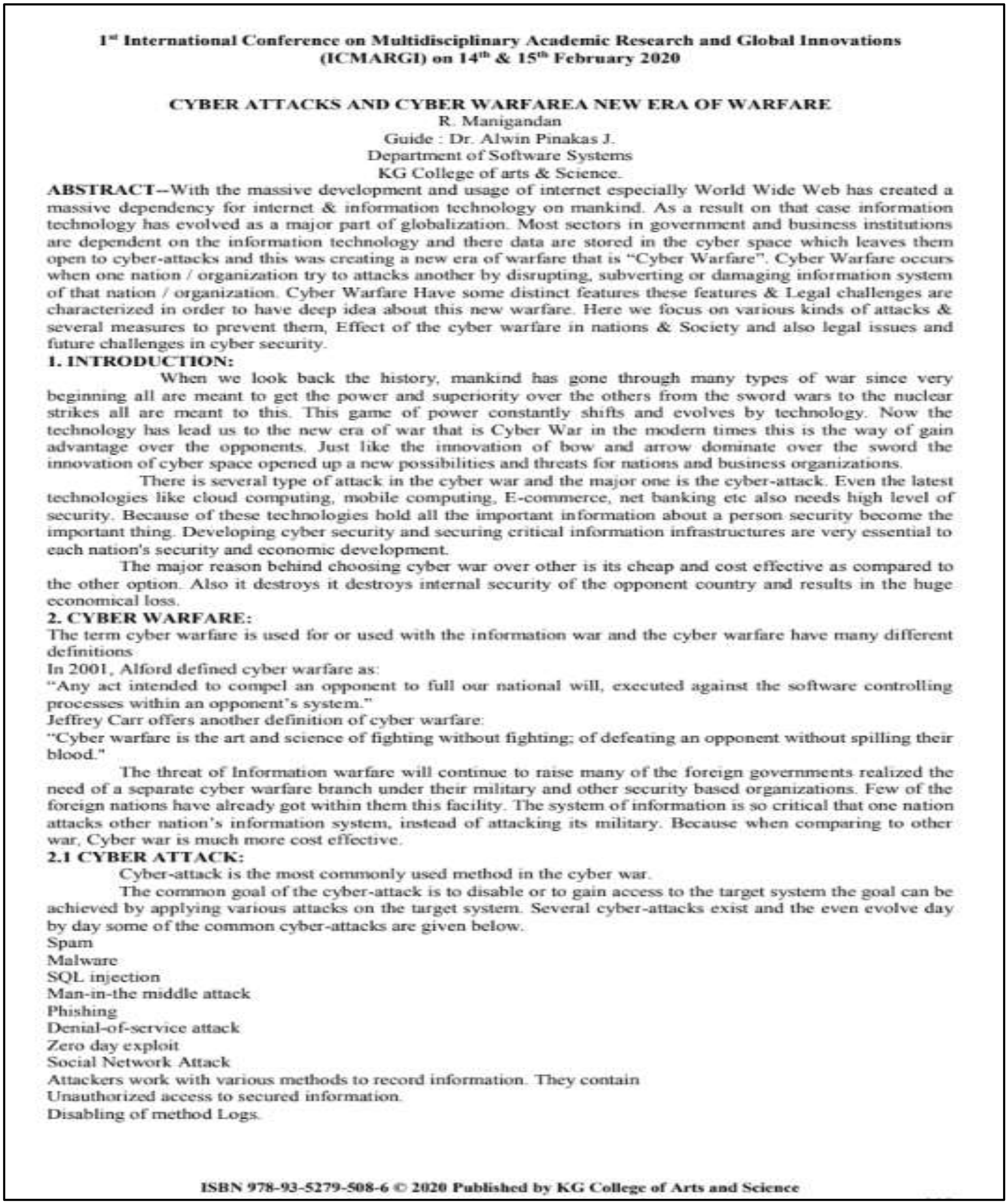

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CYBER ATTACKS AND CYBER WARFAREA NEW ERA OF WARFARE

R. Manigandan
Guide : Dr. Alwin Pinakas J.
Department of Software Systems
KG College of arts & Science.

ABSTRACT--With the massive development and usage of internet especially World Wide Web has created a massive dependency for internet & information technology on mankind. As a result on that case information technology has evolved as a major part of globalization. Most sectors in government and business institutions are dependent on the information technology and there data are stored in the cyber space which leaves them open to cyber-attacks and this was creating a new era of warfare that is "Cyber Warfare". Cyber Warfare occurs when one nation / organization try to attacks another by disrupting, subverting or damaging information system of that nation / organization. Cyber Warfare Have some distinct features these features & Legal challenges are characterized in order to have deep idea about this new warfare. Here we focus on various kinds of attacks & several measures to prevent them, Effect of the cyber warfare in nations & Society and also legal issues and future challenges in cyber security.

1. INTRODUCTION:

When we look back the history, mankind has gone through many types of war since very beginning all are meant to get the power and superiority over the others from the sword wars to the nuclear strikes all are meant to this. This game of power constantly shifts and evolves by technology. Now the technology has lead us to the new era of war that is Cyber War in the modern times this is the way of gain advantage over the opponents. Just like the innovation of bow and arrow dominate over the sword the innovation of cyber space opened up a new possibilities and threats for nations and business organizations.

There is several type of attack in the cyber war and the major one is the cyber-attack. Even the latest technologies like cloud computing, mobile computing, E-commerce, net banking etc also needs high level of security. Because of these technologies hold all the important information about a person security become the important thing. Developing cyber security and securing critical information infrastructures are very essential to each nation's security and economic development.

The major reason behind choosing cyber war over other is its cheap and cost effective as compared to the other option. Also it destroys it destroys internal security of the opponent country and results in the huge economical loss.

2. CYBER WARFARE:

The term cyber warfare is used for or used with the information war and the cyber warfare have many different definitions

In 2001, Alford defined cyber warfare as:

"Any act intended to compel an opponent to full our national will, executed against the software controlling processes within an opponent's system."

Jeffrey Carr offers another definition of cyber warfare:

"Cyber warfare is the art and science of fighting without fighting; of defeating an opponent without spilling their blood."

The threat of Information warfare will continue to raise many of the foreign governments realized the need of a separate cyber warfare branch under their military and other security based organizations. Few of the foreign nations have already got within them this facility. The system of information is so critical that one nation attacks other nation's information system, instead of attacking its military. Because when comparing to other war, Cyber war is much more cost effective.

2.1 CYBER ATTACK:

Cyber-attack is the most commonly used method in the cyber war.

The common goal of the cyber-attack is to disable or to gain access to the target system the goal can be achieved by applying various attacks on the target system. Several cyber-attacks exist and the even evolve day by day some of the common cyber-attacks are given below.

Spam
Malware
SQL injection
Man-in-the middle attack
Phishing
Denial-of-service attack
Zero day exploit
Social Network Attack

Attackers work with various methods to record information. They contain
Unauthorized access to secured information.
Disabling of method Logs.

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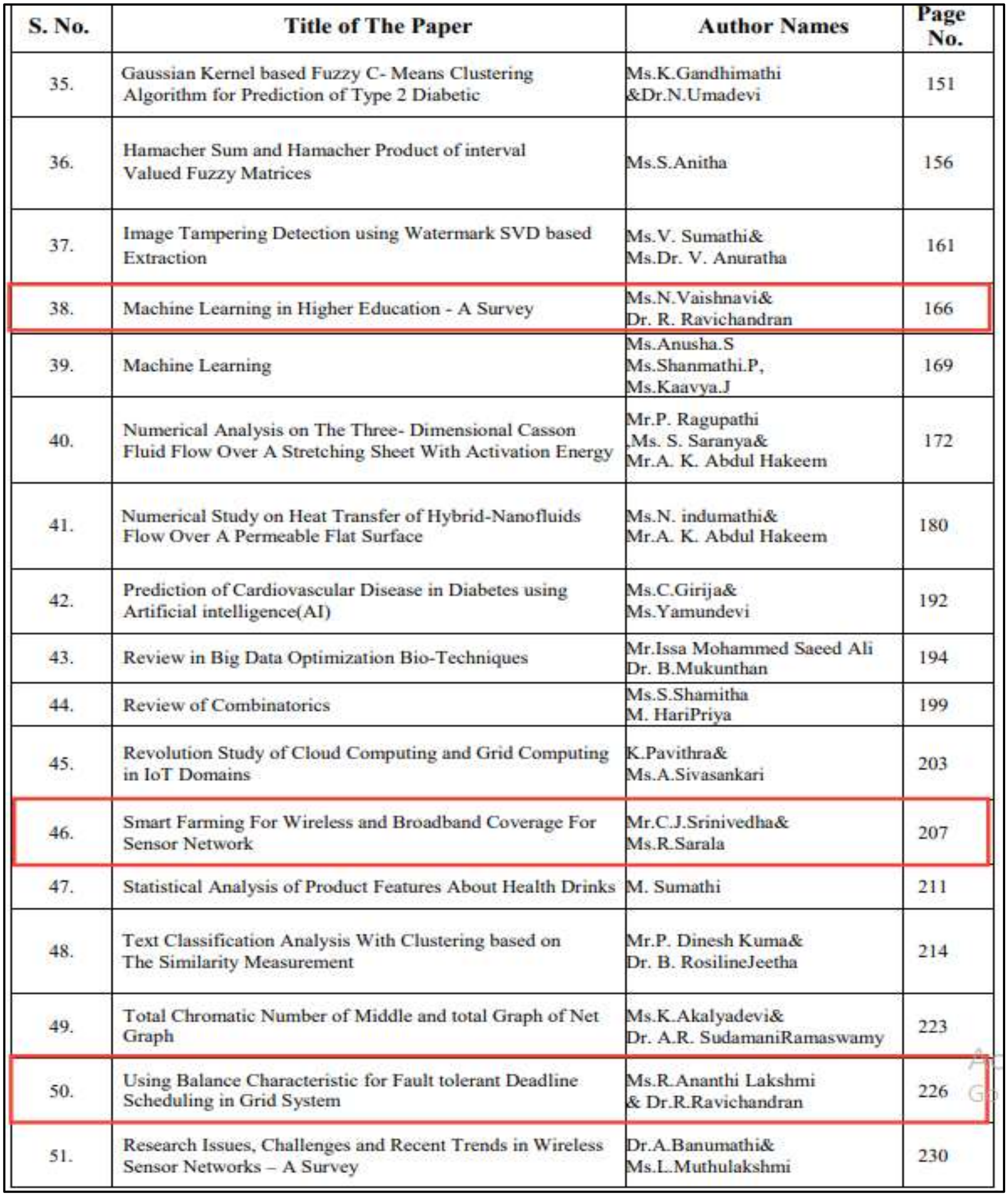

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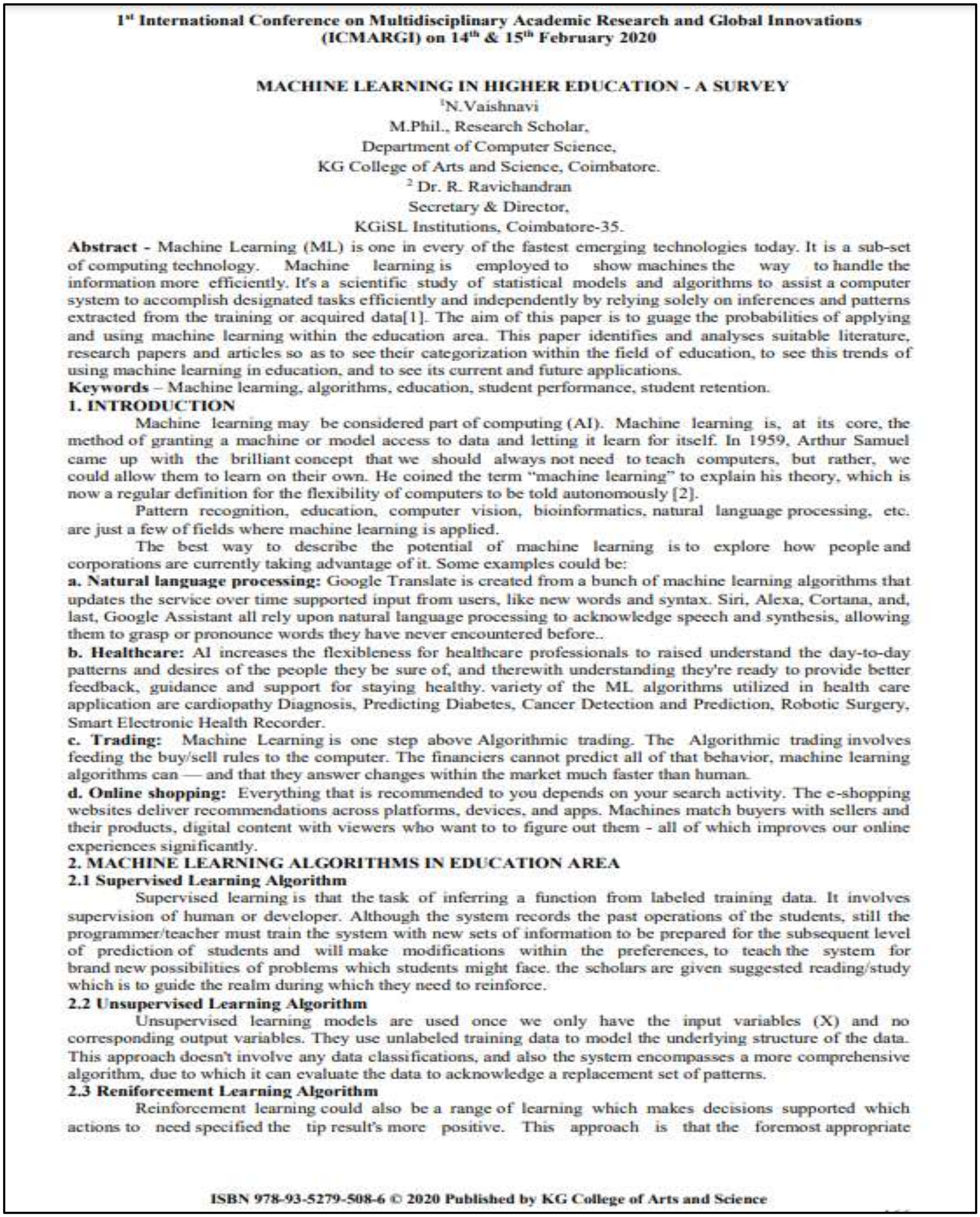

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MACHINE LEARNING IN HIGHER EDUCATION - A SURVEY

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Abstract - Machine Learning (ML) is one in every of the fastest emerging technologies today. It is a sub-set of computing technology. Machine learning is employed to show machines the way to handle the information more efficiently. It's a scientific study of statistical models and algorithms to assist a computer system to accomplish designated tasks efficiently and independently by relying solely on inferences and patterns extracted from the training or acquired data[1]. The aim of this paper is to guage the probabilities of applying and using machine learning within the education area. This paper identifies and analyses suitable literature, research papers and articles so as to see their categorization within the field of education, to see this trends of using machine learning in education, and to see its current and future applications.

Keywords – Machine learning, algorithms, education, student performance, student retention.

1. INTRODUCTION

Machine learning may be considered part of computing (AI). Machine learning is, at its core, the method of granting a machine or model access to data and letting it learn for itself. In 1959, Arthur Samuel came up with the brilliant concept that we should always not need to teach computers, but rather, we could allow them to learn on their own. He coined the term "machine learning" to explain his theory, which is now a regular definition for the flexibility of computers to be told autonomously [2].

Pattern recognition, education, computer vision, bioinformatics, natural language processing, etc. are just a few of fields where machine learning is applied.

The best way to describe the potential of machine learning is to explore how people and corporations are currently taking advantage of it. Some examples could be:

a. Natural language processing: Google Translate is created from a bunch of machine learning algorithms that updates the service over time supported input from users, like new words and syntax. Siri, Alexa, Cortana, and, last, Google Assistant all rely upon natural language processing to acknowledge speech and synthesis, allowing them to grasp or pronounce words they have never encountered before..

b. Healthcare: AI increases the flexibleness for healthcare professionals to raised understand the day-to-day patterns and desires of the people they be sure of, and therewith understanding they're ready to provide better feedback, guidance and support for staying healthy. variety of the ML algorithms utilized in health care application are cardiopathy Diagnosis, Predicting Diabetes, Cancer Detection and Prediction, Robotic Surgery, Smart Electronic Health Recorder.

c. Trading: Machine Learning is one step above Algorithmic trading. The Algorithmic trading involves feeding the buy/sell rules to the computer. The financiers cannot predict all of that behavior, machine learning algorithms can — and that they answer changes within the market much faster than human.

d. Online shopping: Everything that is recommended to you depends on your search activity. The e-shopping websites deliver recommendations across platforms, devices, and apps. Machines match buyers with sellers and their products, digital content with viewers who want to to figure out them - all of which improves our online experiences significantly.

2. MACHINE LEARNING ALGORITHMS IN EDUCATION AREA

2.1 Supervised Learning Algorithm

Supervised learning is that the task of inferring a function from labeled training data. It involves supervision of human or developer. Although the system records the past operations of the students, still the programmer/teacher must train the system with new sets of information to be prepared for the subsequent level of prediction of students and will make modifications within the preferences, to teach the system for brand new possibilities of problems which students might face. the scholars are given suggested reading/study which is to guide the realm during which they need to reinforce.

2.2 Unsupervised Learning Algorithm

Unsupervised learning models are used once we only have the input variables (X) and no corresponding output variables. They use unlabeled training data to model the underlying structure of the data. This approach doesn't involve any data classifications, and also the system encompasses a more comprehensive algorithm, due to which it can evaluate the data to acknowledge a replacement set of patterns.

2.3 Reniforcement Learning Algorithm

Reinforcement learning could also be a range of learning which makes decisions supported which actions to need specified the tip result's more positive. This approach is that the foremost appropriate

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SMART FARMING FOR WIRELESS AND BROADBAND COVERAGE FOR SENSOR NETWORK

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Abstract - This paper deals with block chain algorithm, by which in increasing population which includes scarcity of food production by farmers in which it leads to increase in rate of food products. So, to solve this problem to identify that Drones and Sensors are used in farming field and controlled by human for each and every process. But some of the technical networking barriers exist by which it leads to networking issues to solve this we use Block chain algorithm in which even though in rural and urban areas where network lacks it does not the process of communication and work continues smoothly according to our instructions and commands each and every instructions are given manually to avoid confusion[2].

Keywords: Smart Farming, Block Chain Technology, Monitoring

1. INTRODUCTION

Increasing population leads to scarcity of food, so to solve this problem now-a-days "**SMART FARMING**" is used in farming to increase the production of food for the increasing population. It is mainly for crop-yielding, water spraying, monitoring nutrient level in food, growth of plants, weeding and harvesting plants. But it's monitored using sensor networks for all the working principle sensors are placed and they are monitored using Internet, Intranet, Bluetooth, Wi-Fi and so on., using Internet of Things(IoT) and Information Communication Technologies(ICT).

But without a network connection nothing is possible in this process. But in rural places network coverage in all places is all places is not possible because of farming fields are calculated in acres. So, to solve networking issues in smart farming we use "**BLOCK CHAIN ALGORITHM**", by using this algorithm we could able to solve the networking problems that occurs in smart farming.

Even though in United Kingdom, Germany, Netherlands and Spain use Smart Farming technologies such as Agri-Food Production, Farming 4.0, Dike Monitoring project, Viticulture there exist some technical barriers are as follows.[4]

In the proposed system we use Application such as,

- Water and Nutrition monitoring
- Disease and Bug monitoring
- Soil Monitoring
- Crop health Monitoring
- Machinery i.e., Drones, Sensor, etc.,
- Environment

2. TECHNOLOGY DRIVERS AND BARRIERS

1. M2M based monitering and tracing becoming more mainstream across industries.
2. Improving data management technologies to manage tidal wave of M2M data.
3. Rural wireless and broadband coverage patchy.

3. WATER AND NUTRITION MONITERING

In this system it Spray water, insecticides to the plants. It's capacity is 4 to5 acres of using distance. It can assist with guidance approximately methods to optimize water usage as consistent with the requirement of crop and soil (Crops, flower, fruits).

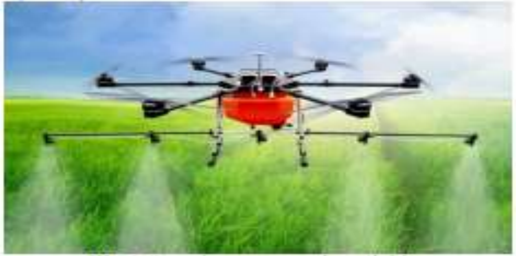

Fig 1: Spraying water and pesticides

In case of restricted water resources, the farmers can come across and limit watering to only at critical section of the crop cycle as a consequence not affecting standard yield.

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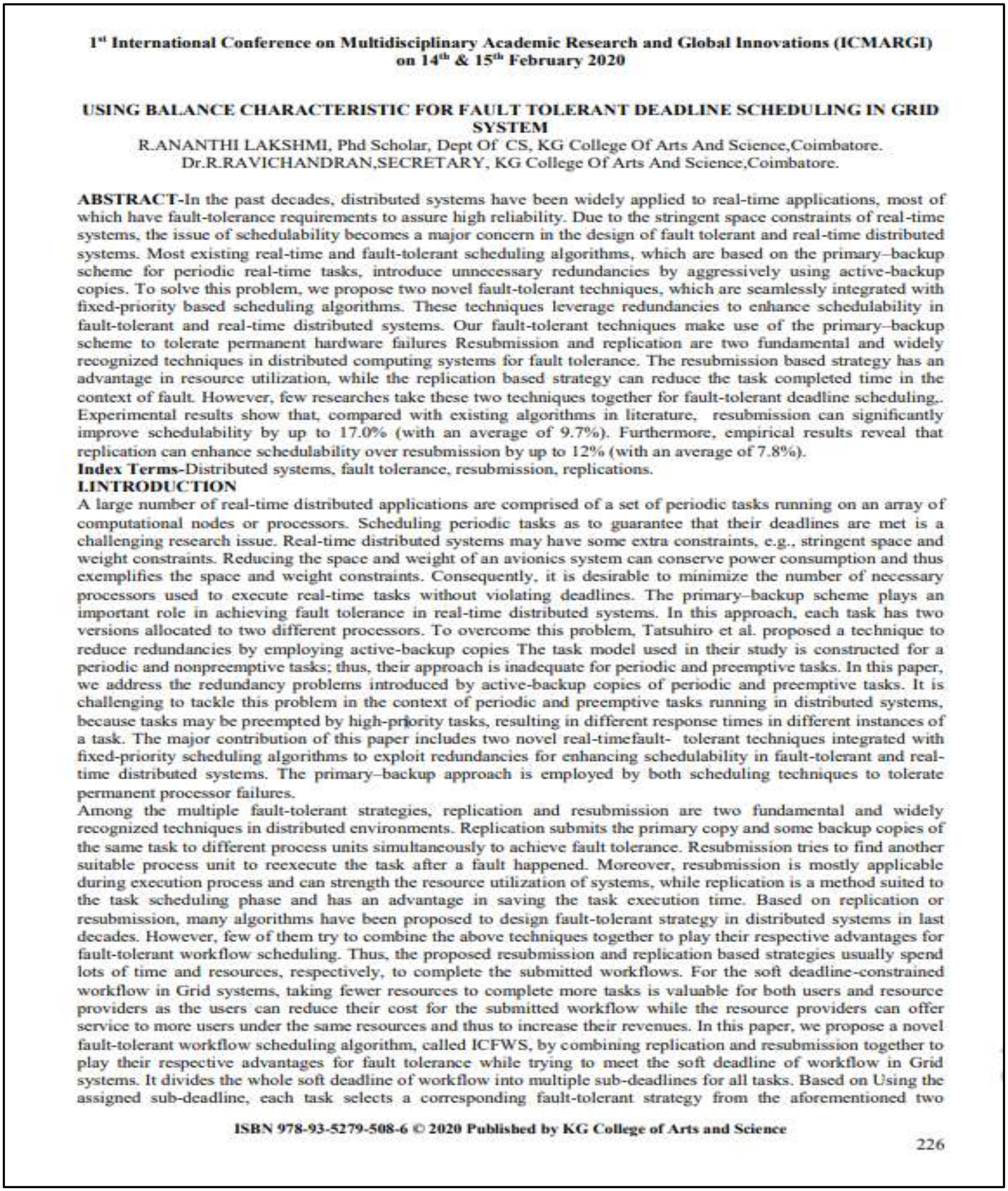

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USING BALANCE CHARACTERISTIC FOR FAULT TOLERANT DEADLINE SCHEDULING IN GRID SYSTEM

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Dr.R.RAVICHANDRAN,SECRETARY, KG College Of Arts And Science,Coimbatore.

ABSTRACT-In the past decades, distributed systems have been widely applied to real-time applications, most of which have fault-tolerance requirements to assure high reliability. Due to the stringent space constraints of real-time systems, the issue of schedulability becomes a major concern in the design of fault tolerant and real-time distributed systems. Most existing real-time and fault-tolerant scheduling algorithms, which are based on the primary–backup scheme for periodic real-time tasks, introduce unnecessary redundancies by aggressively using active-backup copies. To solve this problem, we propose two novel fault-tolerant techniques, which are seamlessly integrated with fixed-priority based scheduling algorithms. These techniques leverage redundancies to enhance schedulability in fault-tolerant and real-time distributed systems. Our fault-tolerant techniques make use of the primary–backup scheme to tolerate permanent hardware failures Resubmission and replication are two fundamental and widely recognized techniques in distributed computing systems for fault tolerance. The resubmission based strategy has an advantage in resource utilization, while the replication based strategy can reduce the task completed time in the context of fault. However, few researches take these two techniques together for fault-tolerant deadline scheduling,. Experimental results show that, compared with existing algorithms in literature, resubmission can significantly improve schedulability by up to 17.0% (with an average of 9.7%). Furthermore, empirical results reveal that replication can enhance schedulability over resubmission by up to 12% (with an average of 7.8%).

Index Terms-Distributed systems, fault tolerance, resubmission, replications.

I.INTRODUCTION

A large number of real-time distributed applications are comprised of a set of periodic tasks running on an array of computational nodes or processors. Scheduling periodic tasks as to guarantee that their deadlines are met is a challenging research issue. Real-time distributed systems may have some extra constraints, e.g., stringent space and weight constraints. Reducing the space and weight of an avionics system can conserve power consumption and thus exemplifies the space and weight constraints. Consequently, it is desirable to minimize the number of necessary processors used to execute real-time tasks without violating deadlines. The primary–backup scheme plays an important role in achieving fault tolerance in real-time distributed systems. In this approach, each task has two versions allocated to two different processors. To overcome this problem, Tatsuhiro et al. proposed a technique to reduce redundancies by employing active-backup copies The task model used in their study is constructed for a periodic and nonpreemptive tasks; thus, their approach is inadequate for periodic and preemptive tasks. In this paper, we address the redundancy problems introduced by active-backup copies of periodic and preemptive tasks. It is challenging to tackle this problem in the context of periodic and preemptive tasks running in distributed systems, because tasks may be preempted by high-priority tasks, resulting in different response times in different instances of a task. The major contribution of this paper includes two novel real-timefault- tolerant techniques integrated with fixed-priority scheduling algorithms to exploit redundancies for enhancing schedulability in fault-tolerant and real-time distributed systems. The primary–backup approach is employed by both scheduling techniques to tolerate permanent processor failures.

Among the multiple fault-tolerant strategies, replication and resubmission are two fundamental and widely recognized techniques in distributed environments. Replication submits the primary copy and some backup copies of the same task to different process units simultaneously to achieve fault tolerance. Resubmission tries to find another suitable process unit to reexecute the task after a fault happened. Moreover, resubmission is mostly applicable during execution process and can strength the resource utilization of systems, while replication is a method suited to the task scheduling phase and has an advantage in saving the task execution time. Based on replication or resubmission, many algorithms have been proposed to design fault-tolerant strategy in distributed systems in last decades. However, few of them try to combine the above techniques together to play their respective advantages for fault-tolerant workflow scheduling. Thus, the proposed resubmission and replication based strategies usually spend lots of time and resources, respectively, to complete the submitted workflows. For the soft deadline-constrained workflow in Grid systems, taking fewer resources to complete more tasks is valuable for both users and resource providers as the users can reduce their cost for the submitted workflow while the resource providers can offer service to more users under the same resources and thus to increase their revenues. In this paper, we propose a novel fault-tolerant workflow scheduling algorithm, called ICFWS, by combining replication and resubmission together to play their respective advantages for fault tolerance while trying to meet the soft deadline of workflow in Grid systems. It divides the whole soft deadline of workflow into multiple sub-deadlines for all tasks. Based on Using the assigned sub-deadline, each task selects a corresponding fault-tolerant strategy from the aforementioned two

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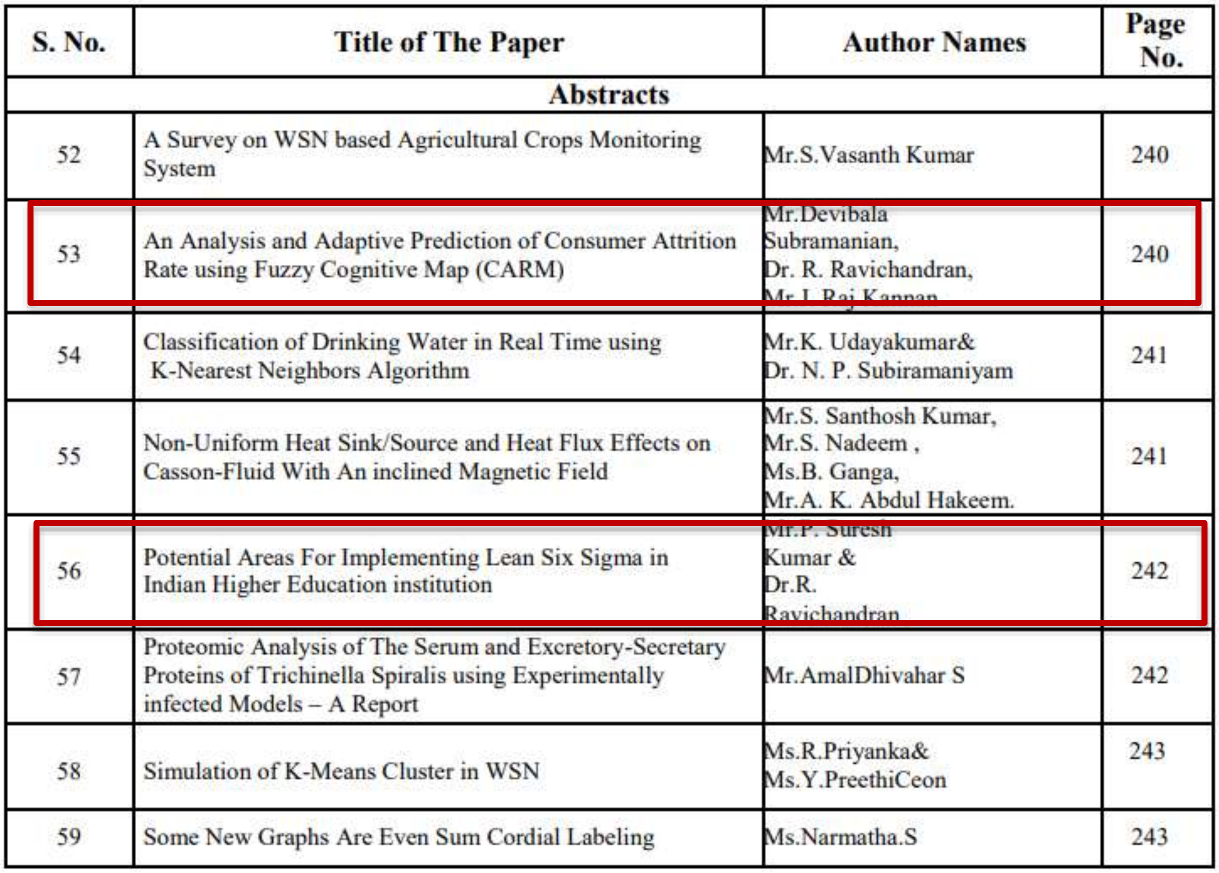

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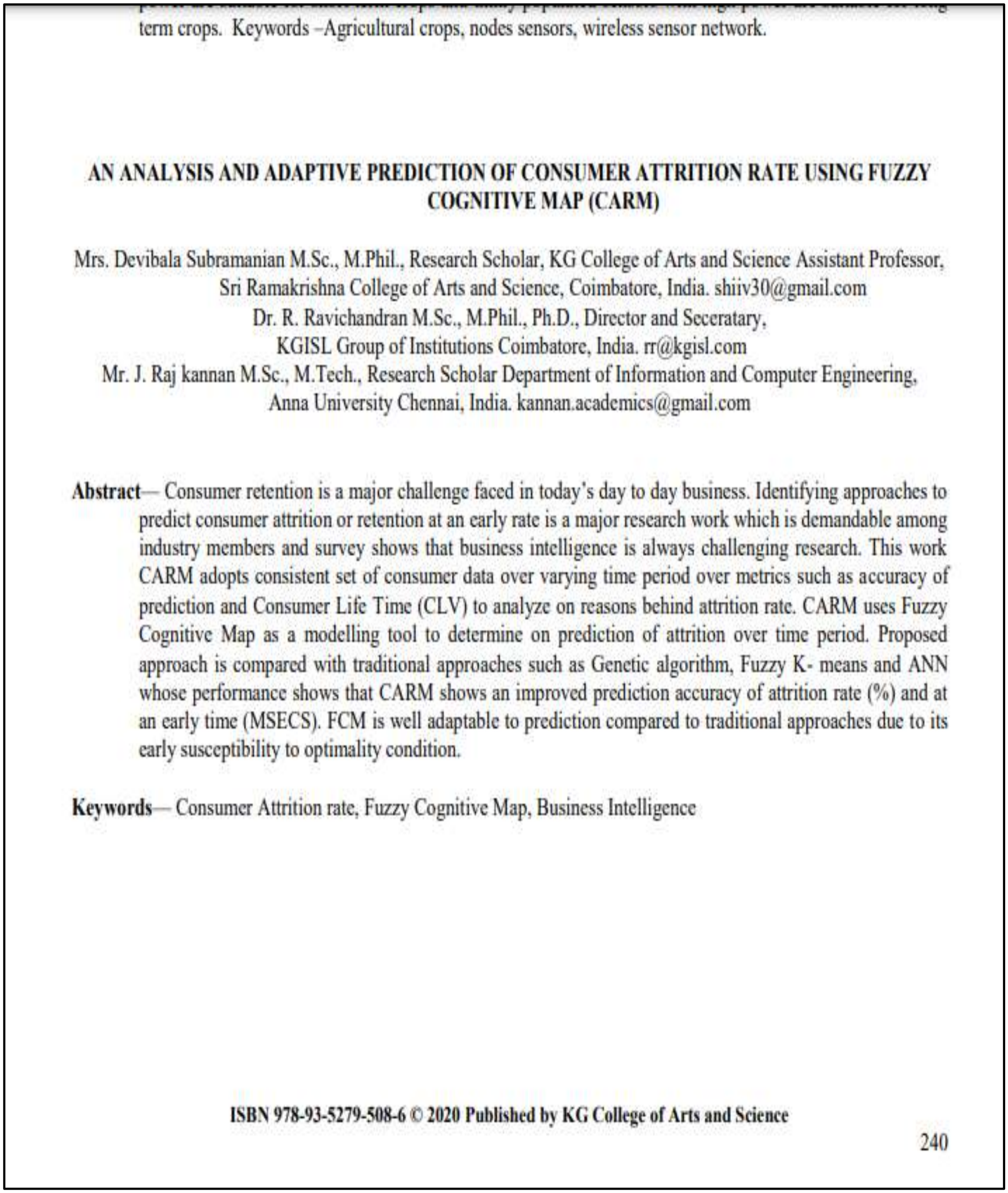

term crops. Keywords –Agricultural crops, nodes sensors, wireless sensor network.

AN ANALYSIS AND ADAPTIVE PREDICTION OF CONSUMER ATTRITION RATE USING FUZZY COGNITIVE MAP (CARM)

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Abstract— Consumer retention is a major challenge faced in today's day to day business. Identifying approaches to predict consumer attrition or retention at an early rate is a major research work which is demandable among industry members and survey shows that business intelligence is always challenging research. This work CARM adopts consistent set of consumer data over varying time period over metrics such as accuracy of prediction and Consumer Life Time (CLV) to analyze on reasons behind attrition rate. CARM uses Fuzzy Cognitive Map as a modelling tool to determine on prediction of attrition over time period. Proposed approach is compared with traditional approaches such as Genetic algorithm, Fuzzy K- means and ANN whose performance shows that CARM shows an improved prediction accuracy of attrition rate (%) and at an early time (MSECS). FCM is well adaptable to prediction compared to traditional approaches due to its early susceptibility to optimality condition.

Keywords— Consumer Attrition rate, Fuzzy Cognitive Map, Business Intelligence

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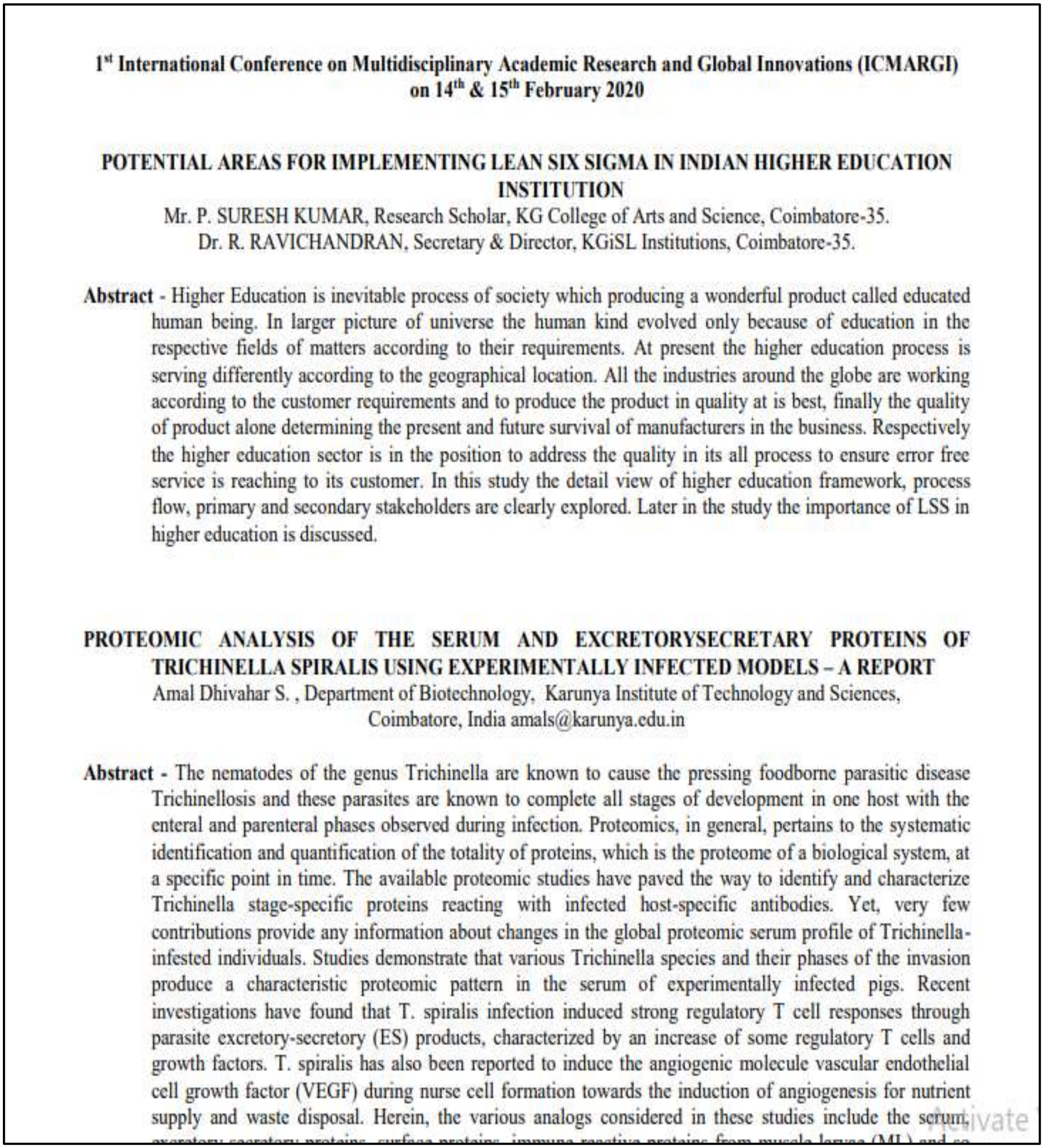

1st International Conference on Multidisciplinary Academic Research and Global Innovations (ICMARGI) on 14th & 15th February 2020

POTENTIAL AREAS FOR IMPLEMENTING LEAN SIX SIGMA IN INDIAN HIGHER EDUCATION INSTITUTION

Mr. P. SURESH KUMAR, Research Scholar, KG College of Arts and Science, Coimbatore-35.
Dr. R. RAVICHANDRAN, Secretary & Director, KGiSL Institutions, Coimbatore-35.

Abstract - Higher Education is inevitable process of society which producing a wonderful product called educated human being. In larger picture of universe the human kind evolved only because of education in the respective fields of matters according to their requirements. At present the higher education process is serving differently according to the geographical location. All the industries around the globe are working according to the customer requirements and to produce the product in quality at is best, finally the quality of product alone determining the present and future survival of manufacturers in the business. Respectively the higher education sector is in the position to address the quality in its all process to ensure error free service is reaching to its customer. In this study the detail view of higher education framework, process flow, primary and secondary stakeholders are clearly explored. Later in the study the importance of LSS in higher education is discussed.

PROTEOMIC ANALYSIS OF THE SERUM AND EXCRETORYSECRETARY PROTEINS OF TRICHINELLA SPIRALIS USING EXPERIMENTALLY INFECTED MODELS – A REPORT

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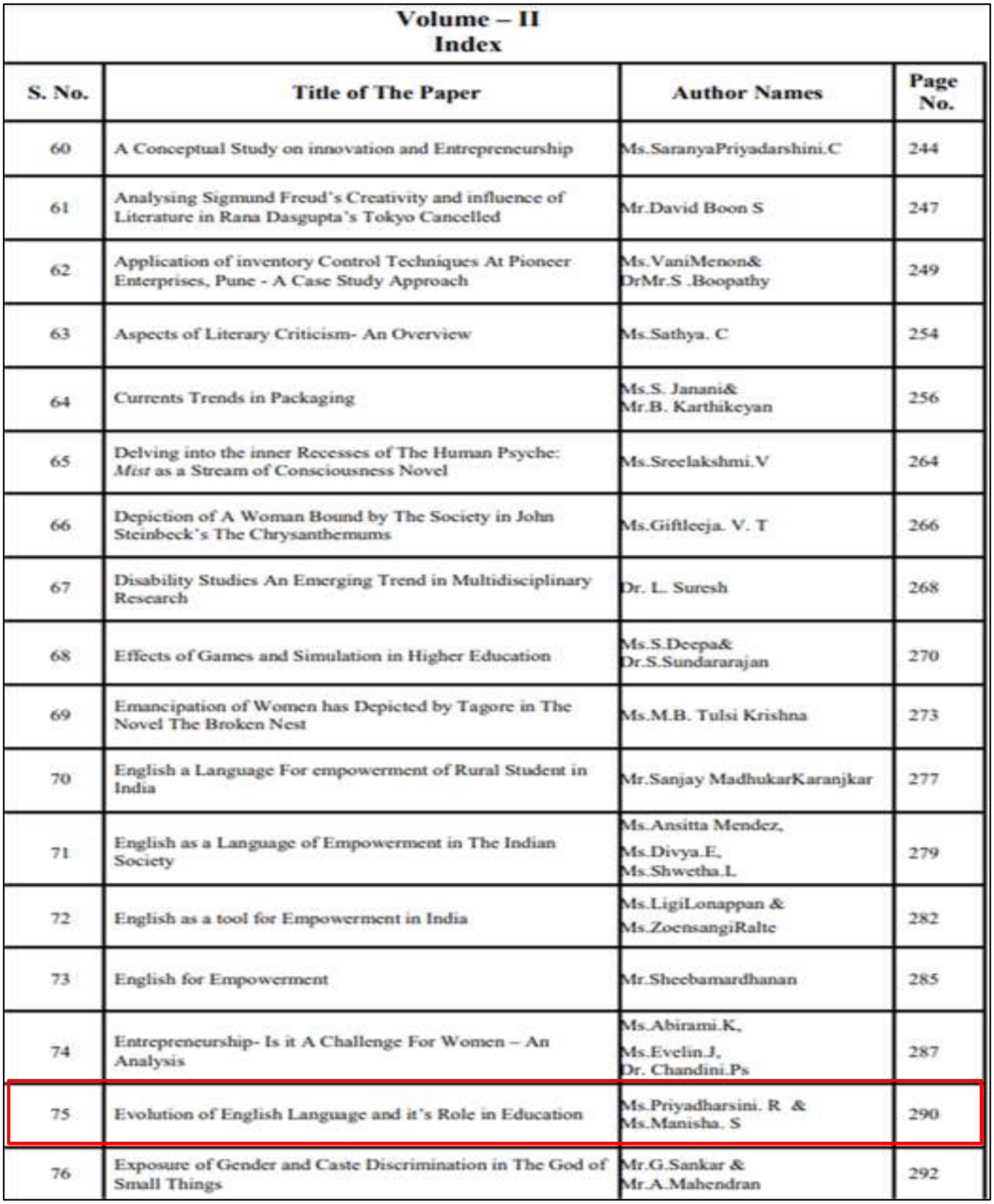
Abstract - The nematodes of the genus Trichinella are known to cause the pressing foodborne parasitic disease Trichinellosis and these parasites are known to complete all stages of development in one host with the enteral and parenteral phases observed during infection. Proteomics, in general, pertains to the systematic identification and quantification of the totality of proteins, which is the proteome of a biological system, at a specific point in time. The available proteomic studies have paved the way to identify and characterize Trichinella stage-specific proteins reacting with infected host-specific antibodies. Yet, very few contributions provide any information about changes in the global proteomic serum profile of Trichinella-infested individuals. Studies demonstrate that various Trichinella species and their phases of the invasion produce a characteristic proteomic pattern in the serum of experimentally infected pigs. Recent investigations have found that T. spiralis infection induced strong regulatory T cell responses through parasite excretory-secretory (ES) products, characterized by an increase of some regulatory T cells and growth factors. T. spiralis has also been reported to induce the angiogenic molecule vascular endothelial cell growth factor (VEGF) during nurse cell formation towards the induction of angiogenesis for nutrient supply and waste disposal. Herein, the various analogs considered in these studies include the serum,



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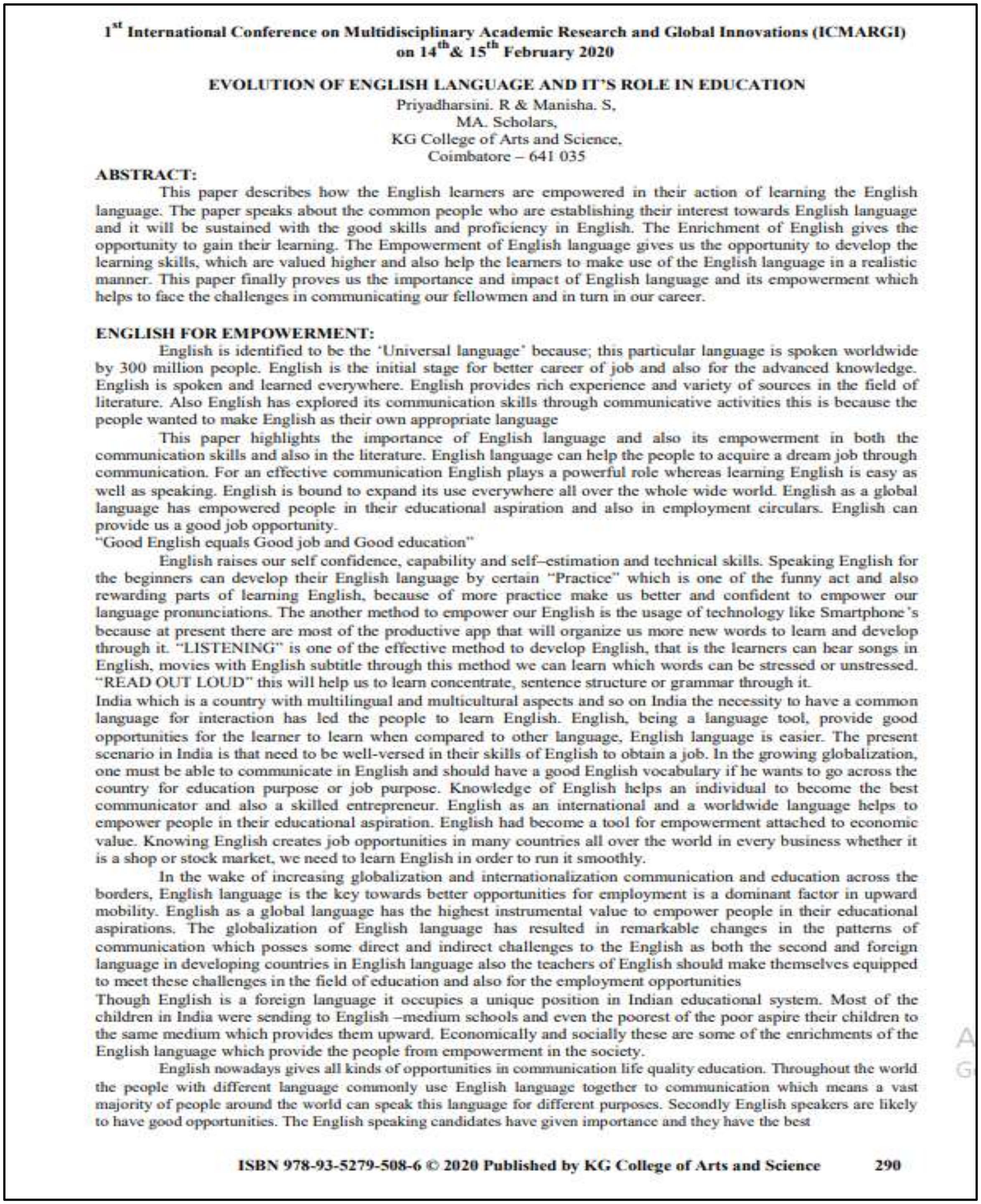

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EVOLUTION OF ENGLISH LANGUAGE AND IT'S ROLE IN EDUCATION

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ABSTRACT:

This paper describes how the English learners are empowered in their action of learning the English language. The paper speaks about the common people who are establishing their interest towards English language and it will be sustained with the good skills and proficiency in English. The Enrichment of English gives the opportunity to gain their learning. The Empowerment of English language gives us the opportunity to develop the learning skills, which are valued higher and also help the learners to make use of the English language in a realistic manner. This paper finally proves us the importance and impact of English language and its empowerment which helps to face the challenges in communicating our fellowmen and in turn in our career.

ENGLISH FOR EMPOWERMENT:

English is identified to be the 'Universal language' because; this particular language is spoken worldwide by 300 million people. English is the initial stage for better career of job and also for the advanced knowledge. English is spoken and learned everywhere. English provides rich experience and variety of sources in the field of literature. Also English has explored its communication skills through communicative activities this is because the people wanted to make English as their own appropriate language

This paper highlights the importance of English language and also its empowerment in both the communication skills and also in the literature. English language can help the people to acquire a dream job through communication. For an effective communication English plays a powerful role whereas learning English is easy as well as speaking. English is bound to expand its use everywhere all over the whole wide world. English as a global language has empowered people in their educational aspiration and also in employment circulars. English can provide us a good job opportunity.

"Good English equals Good job and Good education"

English raises our self confidence, capability and self–estimation and technical skills. Speaking English for the beginners can develop their English language by certain "Practice" which is one of the funny act and also rewarding parts of learning English, because of more practice make us better and confident to empower our language pronunciations. The another method to empower our English is the usage of technology like Smartphone's because at present there are most of the productive app that will organize us more new words to learn and develop through it. "LISTENING" is one of the effective method to develop English, that is the learners can hear songs in English, movies with English subtitle through this method we can learn which words can be stressed or unstressed. "READ OUT LOUD" this will help us to learn concentrate, sentence structure or grammar through it.

India which is a country with multilingual and multicultural aspects and so on India the necessity to have a common language for interaction has led the people to learn English. English, being a language tool, provide good opportunities for the learner to learn when compared to other language, English language is easier. The present scenario in India is that need to be well-versed in their skills of English to obtain a job. In the growing globalization, one must be able to communicate in English and should have a good English vocabulary if he wants to go across the country for education purpose or job purpose. Knowledge of English helps an individual to become the best communicator and also a skilled entrepreneur. English as an international and a worldwide language helps to empower people in their educational aspiration. English had become a tool for empowerment attached to economic value. Knowing English creates job opportunities in many countries all over the world in every business whether it is a shop or stock market, we need to learn English in order to run it smoothly.

In the wake of increasing globalization and internationalization communication and education across the borders, English language is the key towards better opportunities for employment is a dominant factor in upward mobility. English as a global language has the highest instrumental value to empower people in their educational aspirations. The globalization of English language has resulted in remarkable changes in the patterns of communication which posses some direct and indirect challenges to the English as both the second and foreign language in developing countries in English language also the teachers of English should make themselves equipped to meet these challenges in the field of education and also for the employment opportunities

Though English is a foreign language it occupies a unique position in Indian educational system. Most of the children in India were sending to English –medium schools and even the poorest of the poor aspire their children to the same medium which provides them upward. Economically and socially these are some of the enrichments of the English language which provide the people from empowerment in the society.

English nowadays gives all kinds of opportunities in communication life quality education. Throughout the world the people with different language commonly use English language together to communication which means a vast majority of people around the world can speak this language for different purposes. Secondly English speakers are likely to have good opportunities. The English speaking candidates have given importance and they have the best

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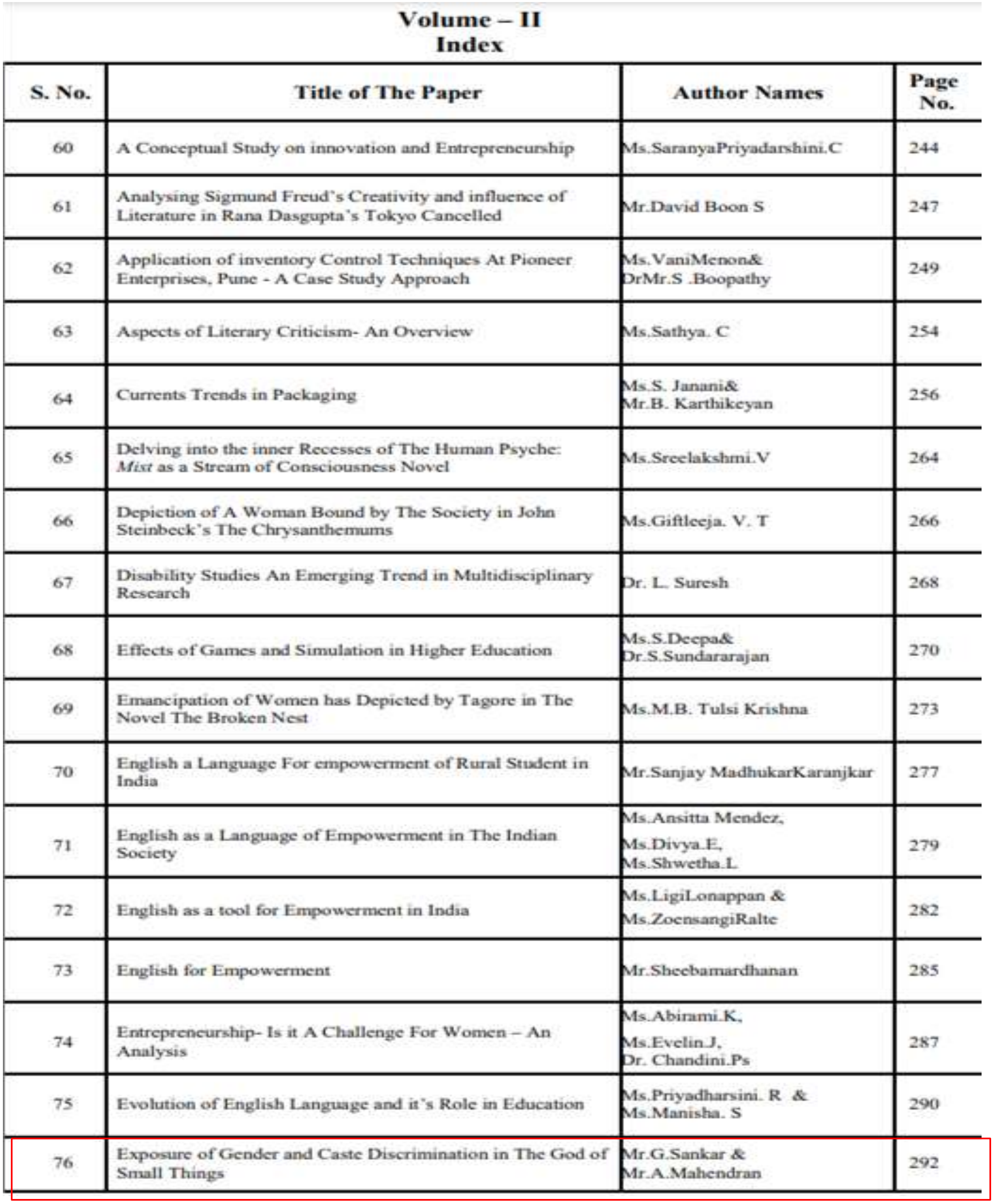

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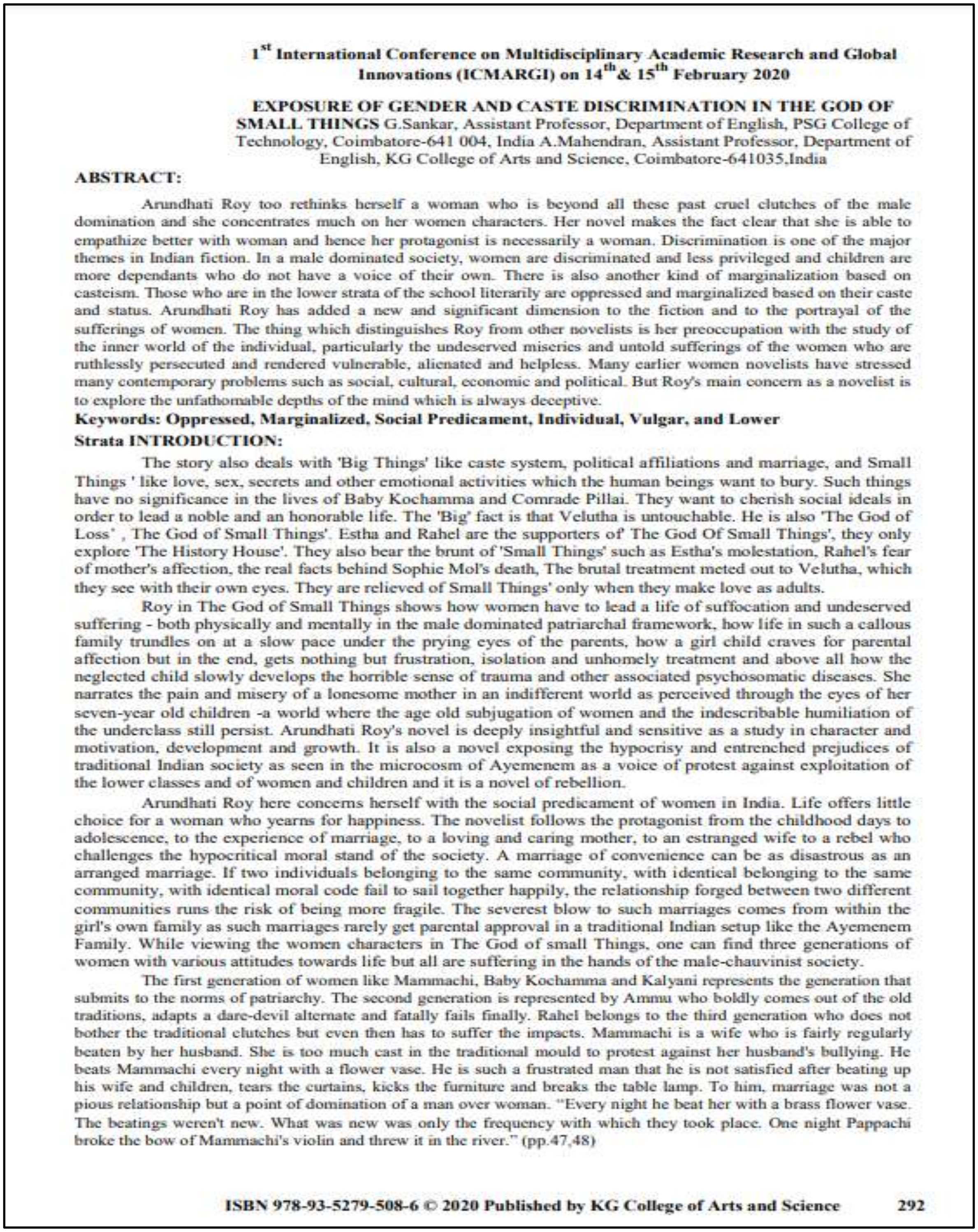

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EXPOSURE OF GENDER AND CASTE DISCRIMINATION IN THE GOD OF SMALL THINGS

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ABSTRACT:

Arundhati Roy too rethinks herself a woman who is beyond all these past cruel clutches of the male domination and she concentrates much on her women characters. Her novel makes the fact clear that she is able to empathize better with woman and hence her protagonist is necessarily a woman. Discrimination is one of the major themes in Indian fiction. In a male dominated society, women are discriminated and less privileged and children are more dependants who do not have a voice of their own. There is also another kind of marginalization based on casteism. Those who are in the lower strata of the school literarily are oppressed and marginalized based on their caste and status. Arundhati Roy has added a new and significant dimension to the fiction and to the portrayal of the sufferings of women. The thing which distinguishes Roy from other novelists is her preoccupation with the study of the inner world of the individual, particularly the undeserved miseries and untold sufferings of the women who are ruthlessly persecuted and rendered vulnerable, alienated and helpless. Many earlier women novelists have stressed many contemporary problems such as social, cultural, economic and political. But Roy's main concern as a novelist is to explore the unfathomable depths of the mind which is always deceptive.

Keywords: Oppressed, Marginalized, Social Predicament, Individual, Vulgar, and Lower Strata

INTRODUCTION:

The story also deals with 'Big Things' like caste system, political affiliations and marriage, and Small Things ' like love, sex, secrets and other emotional activities which the human beings want to bury. Such things have no significance in the lives of Baby Kochamma and Comrade Pillai. They want to cherish social ideals in order to lead a noble and an honorable life. The 'Big' fact is that Velutha is untouchable. He is also 'The God of Loss' , The God of Small Things'. Estha and Rahel are the supporters of' The God Of Small Things', they only explore 'The History House'. They also bear the brunt of 'Small Things' such as Estha's molestation, Rahel's fear of mother's affection, the real facts behind Sophie Mol's death, The brutal treatment meted out to Velutha, which they see with their own eyes. They are relieved of Small Things' only when they make love as adults.

Roy in The God of Small Things shows how women have to lead a life of suffocation and undeserved suffering - both physically and mentally in the male dominated patriarchal framework, how life in such a callous family trundles on at a slow pace under the prying eyes of the parents, how a girl child craves for parental affection but in the end, gets nothing but frustration, isolation and unhomely treatment and above all how the neglected child slowly develops the horrible sense of trauma and other associated psychosomatic diseases. She narrates the pain and misery of a lonesome mother in an indifferent world as perceived through the eyes of her seven-year old children -a world where the age old subjugation of women and the indescribable humiliation of the underclass still persist. Arundhati Roy's novel is deeply insightful and sensitive as a study in character and motivation, development and growth. It is also a novel exposing the hypocrisy and entrenched prejudices of traditional Indian society as seen in the microcosm of Ayemenem as a voice of protest against exploitation of the lower classes and of women and children and it is a novel of rebellion.

Arundhati Roy here concerns herself with the social predicament of women in India. Life offers little choice for a woman who yearns for happiness. The novelist follows the protagonist from the childhood days to adolescence, to the experience of marriage, to a loving and caring mother, to an estranged wife to a rebel who challenges the hypocritical moral stand of the society. A marriage of convenience can be as disastrous as an arranged marriage. If two individuals belonging to the same community, with identical belonging to the same community, with identical moral code fail to sail together happily, the relationship forged between two different communities runs the risk of being more fragile. The severest blow to such marriages comes from within the girl's own family as such marriages rarely get parental approval in a traditional Indian setup like the Ayemenem Family. While viewing the women characters in The God of small Things, one can find three generations of women with various attitudes towards life but all are suffering in the hands of the male-chauvinist society.

The first generation of women like Mammachi, Baby Kochamma and Kalyani represents the generation that submits to the norms of patriarchy. The second generation is represented by Ammu who boldly comes out of the old traditions, adapts a dare-devil alternate and fatally fails finally. Rahel belongs to the third generation who does not bother the traditional clutches but even then has to suffer the impacts. Mammachi is a wife who is fairly regularly beaten by her husband. She is too much cast in the traditional mould to protest against her husband's bullying. He beats Mammachi every night with a flower vase. He is such a frustrated man that he is not satisfied after beating up his wife and children, tears the curtains, kicks the furniture and breaks the table lamp. To him, marriage was not a pious relationship but a point of domination of a man over woman. "Every night he beat her with a brass flower vase. The beatings weren't new. What was new was only the frequency with which they took place. One night Pappachi broke the bow of Mammachi's violin and threw it in the river." (pp.47,48)

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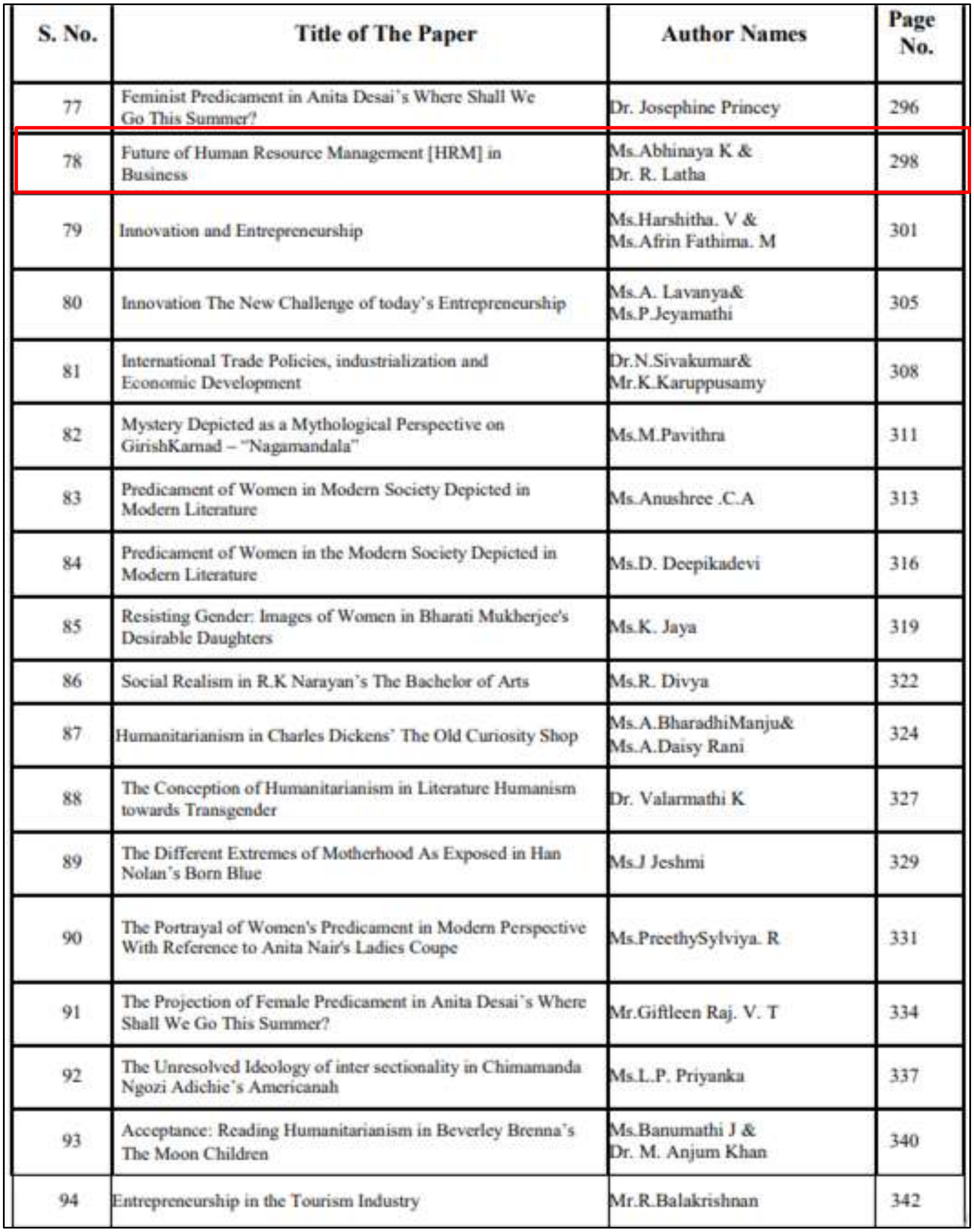

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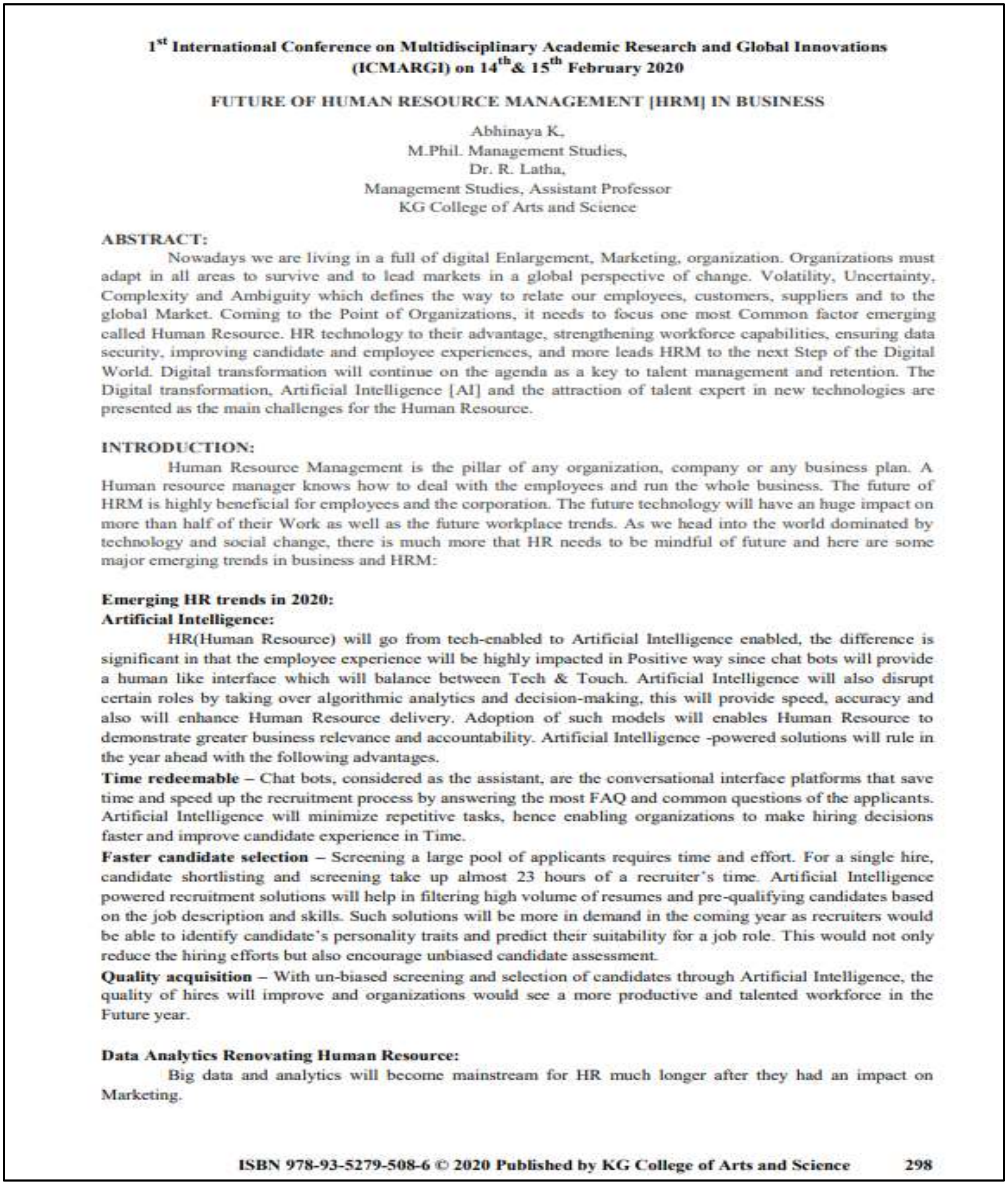

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FUTURE OF HUMAN RESOURCE MANAGEMENT [HRM] IN BUSINESS

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ABSTRACT:

Nowadays we are living in a full of digital Enlargement, Marketing, organization. Organizations must adapt in all areas to survive and to lead markets in a global perspective of change. Volatility, Uncertainty, Complexity and Ambiguity which defines the way to relate our employees, customers, suppliers and to the global Market. Coming to the Point of Organizations, it needs to focus one most Common factor emerging called Human Resource. HR technology to their advantage, strengthening workforce capabilities, ensuring data security, improving candidate and employee experiences, and more leads HRM to the next Step of the Digital World. Digital transformation will continue on the agenda as a key to talent management and retention. The Digital transformation, Artificial Intelligence [AI] and the attraction of talent expert in new technologies are presented as the main challenges for the Human Resource.

INTRODUCTION:

Human Resource Management is the pillar of any organization, company or any business plan. A Human resource manager knows how to deal with the employees and run the whole business. The future of HRM is highly beneficial for employees and the corporation. The future technology will have an huge impact on more than half of their Work as well as the future workplace trends. As we head into the world dominated by technology and social change, there is much more that HR needs to be mindful of future and here are some major emerging trends in business and HRM:

Emerging HR trends in 2020:

Artificial Intelligence:

HR(Human Resource) will go from tech-enabled to Artificial Intelligence enabled, the difference is significant in that the employee experience will be highly impacted in Positive way since chat bots will provide a human like interface which will balance between Tech & Touch. Artificial Intelligence will also disrupt certain roles by taking over algorithmic analytics and decision-making, this will provide speed, accuracy and also will enhance Human Resource delivery. Adoption of such models will enables Human Resource to demonstrate greater business relevance and accountability. Artificial Intelligence -powered solutions will rule in the year ahead with the following advantages.

Time redeemable – Chat bots, considered as the assistant, are the conversational interface platforms that save time and speed up the recruitment process by answering the most FAQ and common questions of the applicants. Artificial Intelligence will minimize repetitive tasks, hence enabling organizations to make hiring decisions faster and improve candidate experience in Time.

Faster candidate selection – Screening a large pool of applicants requires time and effort. For a single hire, candidate shortlisting and screening take up almost 23 hours of a recruiter's time. Artificial Intelligence powered recruitment solutions will help in filtering high volume of resumes and pre-qualifying candidates based on the job description and skills. Such solutions will be more in demand in the coming year as recruiters would be able to identify candidate's personality traits and predict their suitability for a job role. This would not only reduce the hiring efforts but also encourage unbiased candidate assessment.

Quality acquisition – With un-biased screening and selection of candidates through Artificial Intelligence, the quality of hires will improve and organizations would see a more productive and talented workforce in the Future year.

Data Analytics Renovating Human Resource:

Big data and analytics will become mainstream for HR much longer after they had an impact on Marketing.

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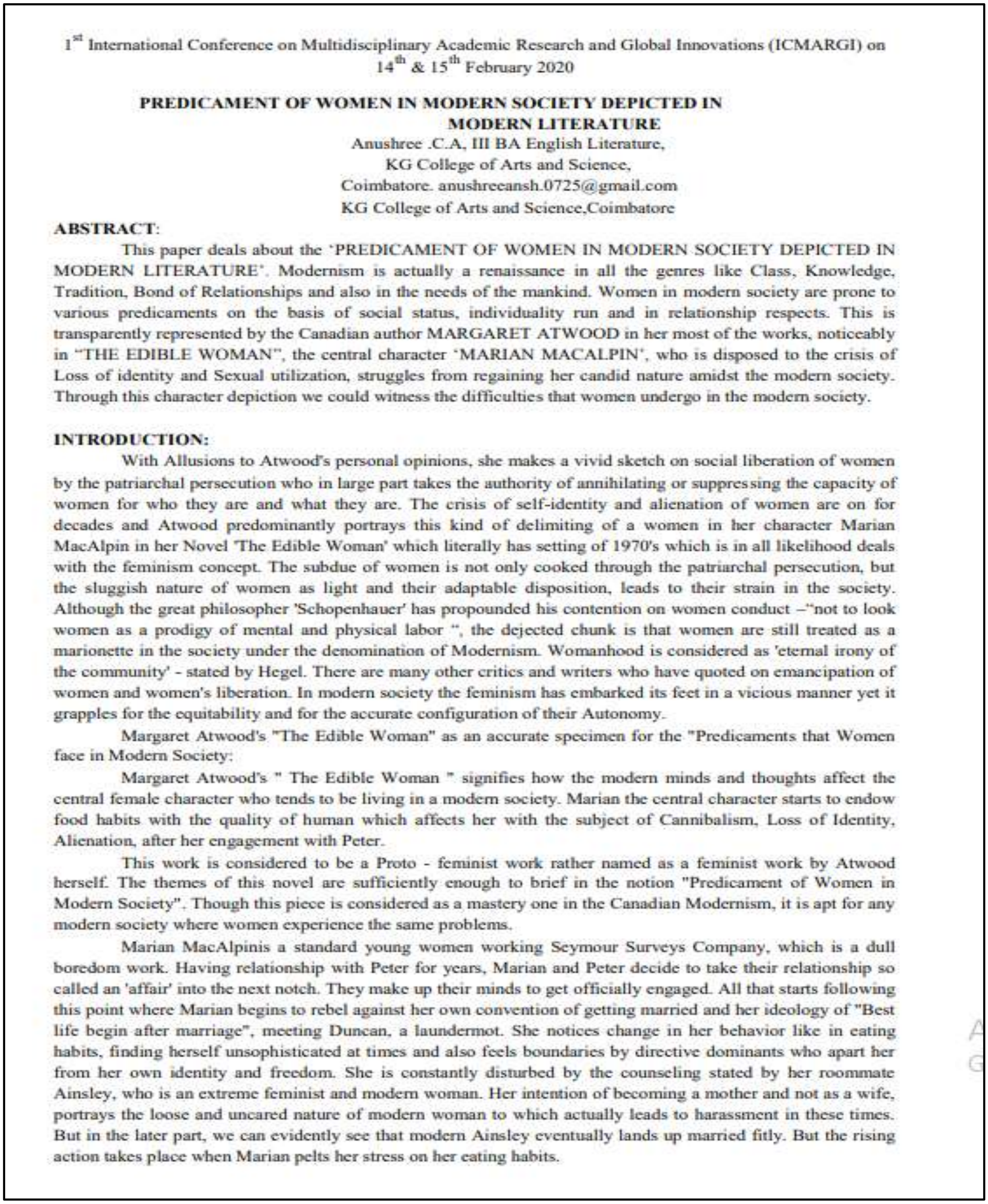

1st International Conference on Multidisciplinary Academic Research and Global Innovations (ICMARGI) on 14th & 15th February 2020

PREDICAMENT OF WOMEN IN MODERN SOCIETY DEPICTED IN MODERN LITERATURE

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ABSTRACT:

This paper deals about the 'PREDICAMENT OF WOMEN IN MODERN SOCIETY DEPICTED IN MODERN LITERATURE'. Modernism is actually a renaissance in all the genres like Class, Knowledge, Tradition, Bond of Relationships and also in the needs of the mankind. Women in modern society are prone to various predicaments on the basis of social status, individuality run and in relationship respects. This is transparently represented by the Canadian author MARGARET ATWOOD in her most of the works, noticeably in "THE EDIBLE WOMAN", the central character 'MARIAN MACALPIN', who is disposed to the crisis of Loss of identity and Sexual utilization, struggles from regaining her candid nature amidst the modern society. Through this character depiction we could witness the difficulties that women undergo in the modern society.

INTRODUCTION:

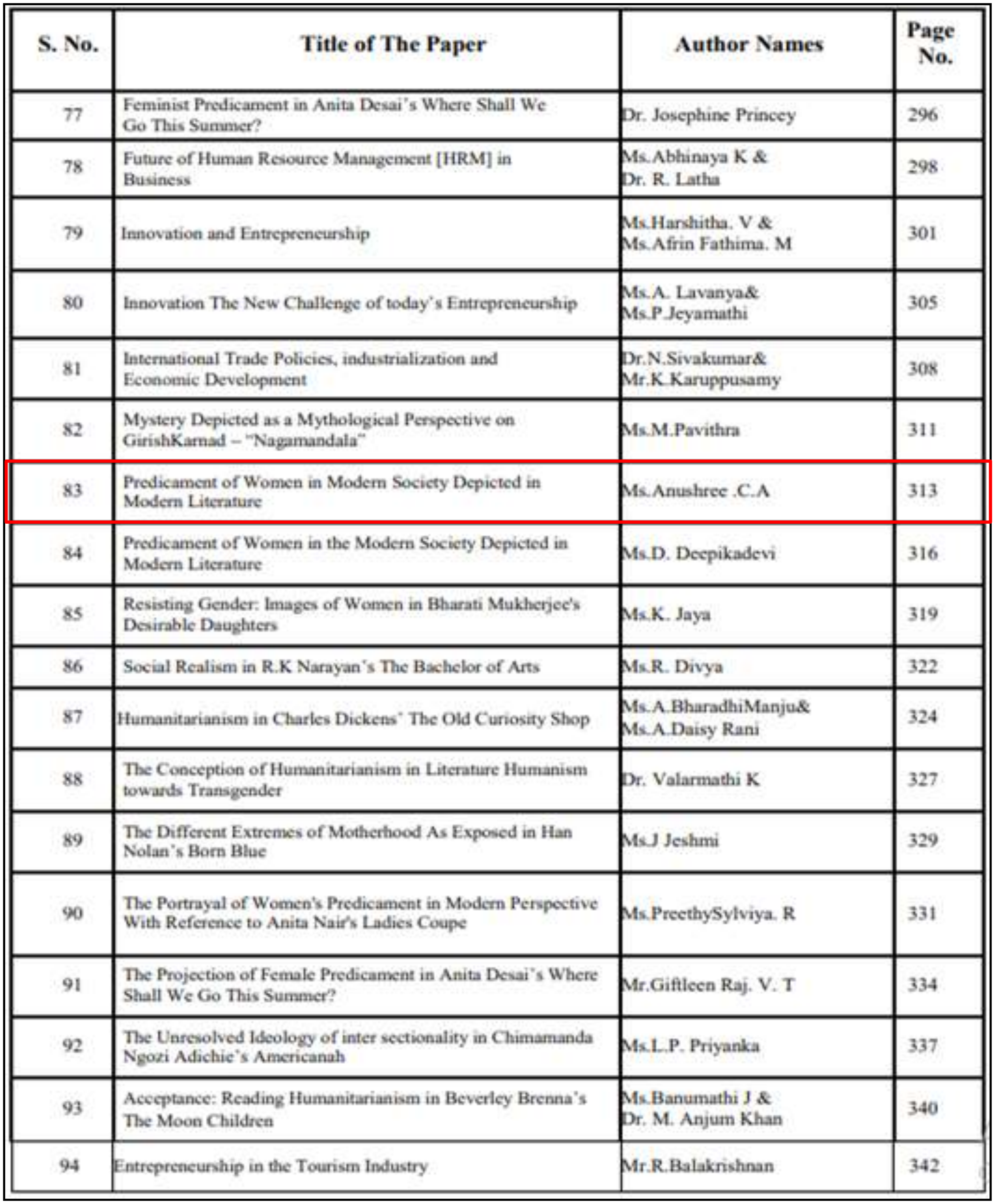
With Allusions to Atwood's personal opinions, she makes a vivid sketch on social liberation of women by the patriarchal persecution who in large part takes the authority of annihilating or suppressing the capacity of women for who they are and what they are. The crisis of self-identity and alienation of women are on for decades and Atwood predominantly portrays this kind of delimiting of a women in her character Marian MacAlpin in her Novel 'The Edible Woman' which literally has setting of 1970's which is in all likelihood deals with the feminism concept. The subdue of women is not only cooked through the patriarchal persecution, but the sluggish nature of women as light and their adaptable disposition, leads to their strain in the society. Although the great philosopher 'Schopenhauer' has propounded his contention on women conduct –"not to look women as a prodigy of mental and physical labor ", the dejected chunk is that women are still treated as a marionette in the society under the denomination of Modernism. Womanhood is considered as 'eternal irony of the community' - stated by Hegel. There are many other critics and writers who have quoted on emancipation of women and women's liberation. In modern society the feminism has embarked its feet in a vicious manner yet it grapples for the equitability and for the accurate configuration of their Autonomy.

Margaret Atwood's "The Edible Woman" as an accurate specimen for the "Predicaments that Women face in Modern Society:

Margaret Atwood's " The Edible Woman " signifies how the modern minds and thoughts affect the central female character who tends to be living in a modern society. Marian the central character starts to endow food habits with the quality of human which affects her with the subject of Cannibalism, Loss of Identity, Alienation, after her engagement with Peter.

This work is considered to be a Proto - feminist work rather named as a feminist work by Atwood herself. The themes of this novel are sufficiently enough to brief in the notion "Predicament of Women in Modern Society". Though this piece is considered as a mastery one in the Canadian Modernism, it is apt for any modern society where women experience the same problems.

Marian MacAlpinis a standard young women working Seymour Surveys Company, which is a dull boredom work. Having relationship with Peter for years, Marian and Peter decide to take their relationship so called an 'affair' into the next notch. They make up their minds to get officially engaged. All that starts following this point where Marian begins to rebel against her own convention of getting married and her ideology of "Best life begin after marriage", meeting Duncan, a laundermot. She notices change in her behavior like in eating habits, finding herself unsophisticated at times and also feels boundaries by directive dominants who apart her from her own identity and freedom. She is constantly disturbed by the counseling stated by her roommate Ainsley, who is an extreme feminist and modern woman. Her intention of becoming a mother and not as a wife, portrays the loose and uncared nature of modern woman to which actually leads to harassment in these times. But in the later part, we can evidently see that modern Ainsley eventually lands up married fitly. But the rising action takes place when Marian pelts her stress on her eating habits.



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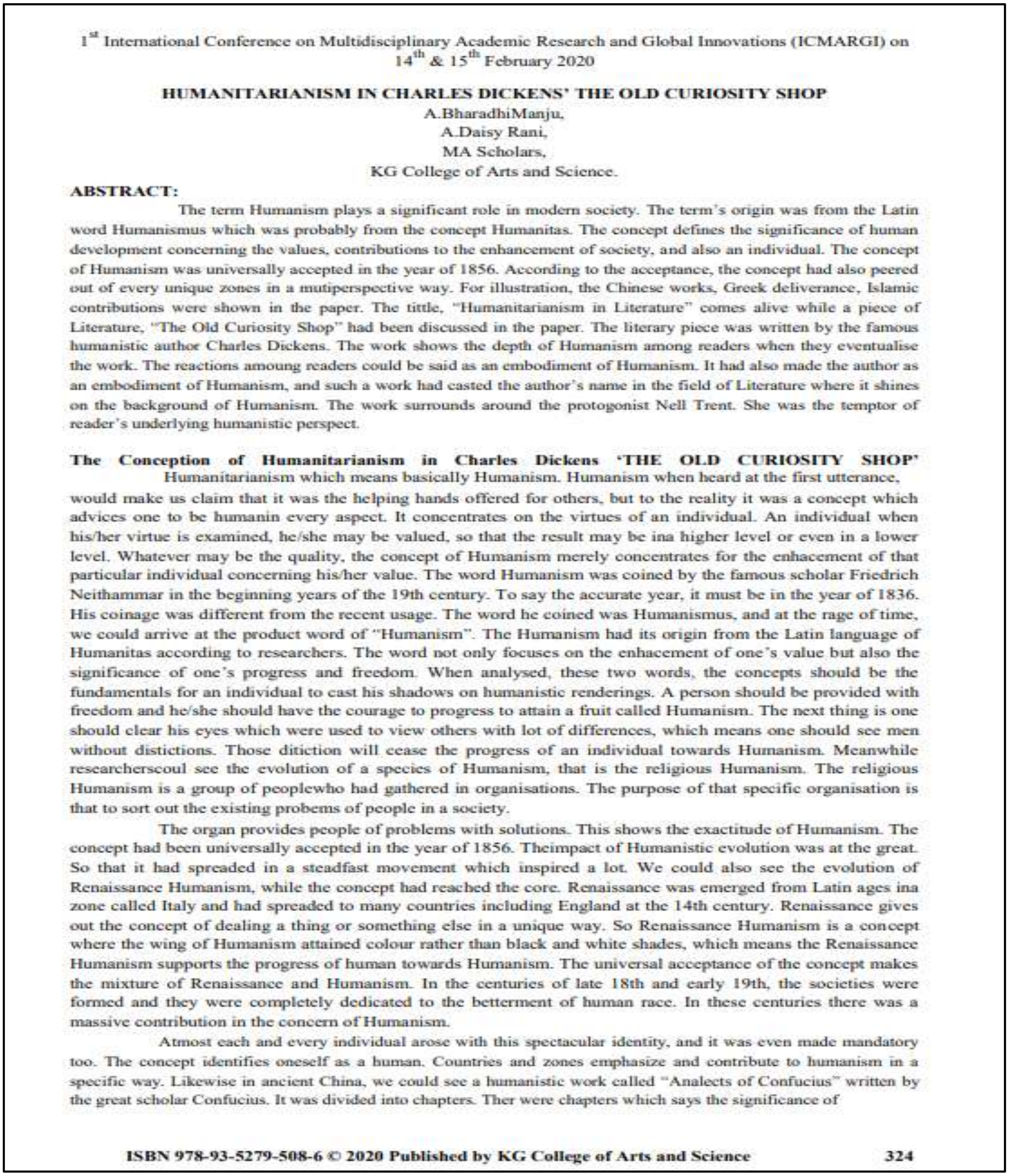

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HUMANITARIANISM IN CHARLES DICKENS' THE OLD CURIOSITY SHOP

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ABSTRACT:

The term Humanism plays a significant role in modern society. The term's origin was from the Latin word Humanismus which was probably from the concept Humanitas. The concept defines the significance of human development concerning the values, contributions to the enhancement of society, and also an individual. The concept of Humanism was universally accepted in the year of 1856. According to the acceptance, the concept had also peered out of every unique zones in a mutiperspective way. For illustration, the Chinese works, Greek deliverance, Islamic contributions were shown in the paper. The tittle, "Humanitarianism in Literature" comes alive while a piece of Literature, "The Old Curiosity Shop" had been discussed in the paper. The literary piece was written by the famous humanistic author Charles Dickens. The work shows the depth of Humanism among readers when they eventualise the work. The reactions amoung readers could be said as an embodiment of Humanism. It had also made the author as an embodiment of Humanism, and such a work had casted the author's name in the field of Literature where it shines on the background of Humanism. The work surrounds around the protogonist Nell Trent. She was the temptor of reader's underlying humanistic perspect.

The Conception of Humanitarianism in Charles Dickens 'THE OLD CURIOSITY SHOP'

Humanitarianism which means basically Humanism. Humanism when heard at the first utterance, would make us claim that it was the helping hands offered for others, but to the reality it was a concept which advices one to be humanin every aspect. It concentrates on the virtues of an individual. An individual when his/her virtue is examined, he/she may be valued, so that the result may be ina higher level or even in a lower level. Whatever may be the quality, the concept of Humanism merely concentrates for the enhacement of that particular individual concerning his/her value. The word Humanism was coined by the famous scholar Friedrich Neithammar in the beginning years of the 19th century. To say the accurate year, it must be in the year of 1836. His coinage was different from the recent usage. The word he coined was Humanismus, and at the rage of time, we could arrive at the product word of "Humanism". The Humanism had its origin from the Latin language of Humanitas according to researchers. The word not only focuses on the enhacement of one's value but also the significance of one's progress and freedom. When analysed, these two words, the concepts should be the fundamentals for an individual to cast his shadows on humanistic renderings. A person should be provided with freedom and he/she should have the courage to progress to attain a fruit called Humanism. The next thing is one should clear his eyes which were used to view others with lot of differences, which means one should see men without distictions. Those ditiction will cease the progress of an individual towards Humanism. Meanwhile researcherscoul see the evolution of a species of Humanism, that is the religious Humanism. The religious Humanism is a group of peoplewho had gathered in organisations. The purpose of that specific organisation is that to sort out the existing probems of people in a society.

The organ provides people of problems with solutions. This shows the exactitude of Humanism. The concept had been universally accepted in the year of 1856. Theimpact of Humanistic evolution was at the great. So that it had spreaded in a steadfast movement which inspired a lot. We could also see the evolution of Renaissance Humanism, while the concept had reached the core. Renaissance was emerged from Latin ages ina zone called Italy and had spreaded to many countries including England at the 14th century. Renaissance gives out the concept of dealing a thing or something else in a unique way. So Renaissance Humanism is a concept where the wing of Humanism attained colour rather than black and white shades, which means the Renaissance Humanism supports the progress of human towards Humanism. The universal acceptance of the concept makes the mixture of Renaissance and Humanism. In the centuries of late 18th and early 19th, the societies were formed and they were completely dedicated to the betterment of human race. In these centuries there was a massive contribution in the concern of Humanism.

Atmost each and every individual arose with this spectacular identity, and it was even made mandatory too. The concept identifies oneself as a human. Countries and zones emphasize and contribute to humanism in a specific way. Likewise in ancient China, we could see a humanistic work called "Analects of Confucius" written by the great scholar Confucius. It was divided into chapters. Ther were chapters which says the significance of